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**DETECTING THE DRAGON: AIR-SEA BATTLE AND THE U.S.-JAPAN
ALLIANCE**

Dennis G. Scarborough

Lieutenant Colonel, United States Air Force

**DETECTING THE DRAGON: AIR-SEA BATTLE AND THE U.S.-JAPAN
ALLIANCE**

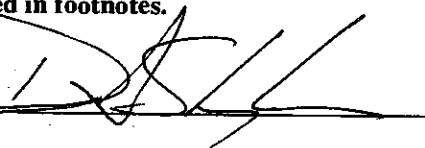
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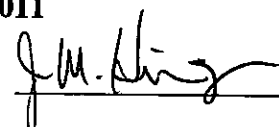
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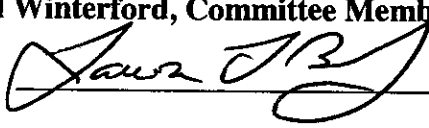
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ABSTRACT

The growing concern over China's anti-access capabilities is beginning to show signs of greater attention among the leadership of the United States. The fall 2010 activity of President Obama in both the Far-East and Europe suggest that there is growing concern over ensuring the global balance of power remains stable while the United States effects conflict transition in both Iraq and Afghanistan, while managing a \$13.98 trillion fiscal debt. China has shown remarkable capacity to leverage the United States' over focus on the Global War on Terrorism and its own economic windfall to expand gradually its regional influence in the Northeast Asia.

As a global power, the United States relies on access to the "global commons" to ensure its security. Although the United States possesses an unprecedented ability to globally project power, the ability to project power is finite and expensive. It is of vital national interest that the bi-lateral alliance with Japan strengthens in light of the growing anti-access capability possessed by China.

Through the strength of the U.S.-Japan Alliance, Air-Sea Battle provides a concept for deterrence that will address the growing anti-access threat to Northeast Asia as a result of China's military modernization, thereby leading to the continued preeminence of U.S. and allied military presence in the Pacific during the first quarter of the 21st century.

DEDICATION

This thesis is dedicated to my beloved wife and our children. Their selfless sacrifice has allowed me to pursue a career of service to this country and allowed me to pursue my dreams. I could not do any of this without their love and support and I only hope that after this part of the journey is over I am able to give them the time they deserve.

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INTRODUCTION

The growing concern over China's anti-access capabilities is beginning to show signs of greater attention among the leadership of the United States. Although clearly engaged in the on-going conflicts in Iraq and Afghanistan, the fall 2010 activity of President Obama in both the Far-East and Europe suggest that there is growing concern over ensuring the global balance of power remains stable while the United States effects conflict transition in both Iraq and Afghanistan, while managing a \$13.98 trillion fiscal debt.¹ This shift in strategic vision beyond the conflicts in Iraq and Afghanistan show a marked change in strategic thought and serves as a significant milestone in breaking the "operational myopia" that has influenced the United States since September 11, 2001.

As a global power, the United States relies on access to the "global commons" to ensure its security. Global commons are those domains that transcend national boundaries and should be protected against undue influences or actions outside of internationally recognized norms. The domains most identified as global commons are the domains of air, sea, space, and cyberspace.² The United States strives to preserve its access to these environments in order to pursue its national interests and promote stability throughout the globe. The United States military is a key element of national power which has been focused intently on the defeat of Al Qaeda and the stability of Iraq and Afghanistan for nearly ten years. However, threats to the United States national interests have not remained dormant and nations have utilized the United States myopic vision to

¹ Central Intelligence Agency, "The World Factbook," <http://www.cia.gov/library/publications/the-world-factbook/geos/us.html> (accessed February 20, 2011).

² Patrick M. Cronin, Daniel M. Kliman, and Abraham M. Denmark, *Renewal: Revitalizing the U.S.-Japan Alliance* (Washington, DC: Center for a New American Security, 2010), 5.

advance their own interests and pursue military advancements that could lead to future force-on-force conflict.

China has shown remarkable capacity to leverage the United States' over focus on the Global War on Terrorism and its own economic windfall to expand gradually its regional influence in the Northeast Asia. The 2001 RAND study, "The United States and Asia," states that "the preeminent geopolitical factor in Asia for the next several decades would appear to be the emergence of China as a great power."³ The study goes on to state that "by 2015 China could emerge as a multidimensional, regional competitor to the United States."⁴ It further states that [by 2015] China "could credibly exercise sea denial with respect to the seas continuous to China; contest aerospace superiority in a sustained way in the areas contiguous to China's borders; threaten U.S. operation locations in East Asia with a variety of long-range strike assets; challenge U.S. information dominance; and pose a strategic nuclear threat to the United States."⁵ This growth of Chinese military capability outlined in this 2001 study has manifested itself unchecked for nearly ten years. The recent fielding of the D-3A, 1500 nautical mile, long-range anti-ship missile adds a significant capability to a complex arsenal of kinetic and non-kinetic anti-access capabilities China possesses.⁶ Chinese anti-access capabilities threaten not only the national interests of the United States, but also the interests and security of key allies and partners in the Northeast Asia.

³ Zalmay Khalilzad et al., *The United States and Asia: Toward a New U.S. Strategy and Force Posture* (Arlington, VA: RAND, 2001), 137.

⁴ Ibid., 141.

⁵ Ibid.

⁶ Jan Van Tol et al., *AirSea Battle: A Point-of-Departure Operational Concept* (Washington, DC: Center for Strategic and Budgetary Assessments, 2010), 18.

The 2010 National Security Strategy states:

We are strengthening our military to ensure that it can prevail in today's wars; to prevent and deter threats against the United States, its interests, and our allies and partners; and prepare to defend the United States in a wide range of contingencies against state and non-state actors...This includes preparing for increasingly sophisticated adversaries, deterring and defeating aggression in anti-access environments, and defending the United States and supporting civil authorities at home.⁷

Furthermore, the 2010 Quadrennial Defense Review (QDR) report identifies six key missions: defend the United States and support civil authorities at home; succeed in counterinsurgency, stability, and counterterrorism operations; build the security capacity of partner states; deter and defeat aggression in anti-access environments; prevent proliferation and counter weapons of mass destructions; and operate effectively in cyberspace.⁸ While focused on the current fight against terrorist threats to the United States and ongoing conflict in Iraq and Afghanistan, these strategic documents clearly highlight an attempt to break the operational myopia of the millennium's first decade and shift focus towards growing anti-access capabilities that threaten the United States, its allies, and partners. The 2010 QDR describes anti-access strategies as those "strategies [that] seek to deny outside countries the ability to project power into a region, thereby allowing aggression or other destabilizing actions to be conducted by the anti-access power."⁹ In light of this growing concern over anti-access, the United States Air Force and Navy have been jointly developing a new Air-Sea Battle concept to integrate

⁷ *National Security Strategy* (Washington, DC: The White House, 2010), 14.

⁸ U.S. Department of Defense, *Quadrennial Defense Review Report* (Washington, DC: 2010), 17.

⁹ *Ibid.*

capabilities across all operational domains in order to deter aggression and defeat adversaries throughout the spectrum of conflict.¹⁰

Northeast Asia presents unique challenges to the Air-Sea Battle concept with the distance between the United States and the region being the primary obstacle facing the United States as it pursues introducing Air-Sea Battle into the region. Although the United States possesses an unprecedented ability to globally project power, the ability to project power is finite and expensive. It is of vital national interest that the bi-lateral alliance with Japan strengthens in light of the growing anti-access capability possessed by China. In the 2010 National Security Strategy, President Obama states, “we will work with our allies and partners to enhance the resilience of U.S. forward posture and facilities against potential attacks [and] strengthen our regional deterrence posture...in order to make certain that regional adversaries gain no advantage from their acquisition of new, offensive military capabilities.”¹¹ The Center for a New American Security study, “Renewal: Revitalizing the U.S.-Japanese Alliance” suggests that “given China’s growing capacity to project military power against a Japan that has chosen to forego offensive strike capabilities of its own, the extended deterrence provided by the alliance is critical.”¹²

The United States and Japan share a common interest in Northeast Asia’s regional security. The freedom of access to the global commons in the region provide for over \$1

¹⁰ 2010 QDR, 32. The operational domains are identified as air, sea, land, space, and cyberspace.

¹¹ *National Security Strategy*, 41.

¹² Cronin, Kliman, and Denmark, 16.

trillion in trade with Asia.¹³ China's economic growth has allowed for an era of military modernization, left relatively unchecked due to the United States commitment to the Middle East in the aftermath of September 11, 2001 and the subsequent military operations in Iraq and Afghanistan. China's military modernization has led to an increase in anti-access capability which in turn has led the United States to view anti-access capabilities as threats to its and its allies' national security especially when applied to Northeast Asia.

The thesis of this paper is that through the strength of the U.S.-Japan Alliance, Air-Sea Battle provides a concept for deterrence that will address the growing anti-access threat to Northeast Asia as a result of China's military modernization, thereby leading to the continued preeminence of U.S. and allied military presence in the Pacific during the first quarter of the 21st century.

The argument presented takes a historical view of the origins of Air-Sea Battle concept through the discussion of the U.S. Army's AirLand Battle concept. The AirLand battle concept guided U.S. Army and Air Force doctrine, organization, training, manpower, logistics, procurement, and facilities (DOTMLPF) in the post-Vietnam era even as the United States found itself engaged across the world in a series of non-conventional conflicts. AirLand Battle guided the integration of the air and land service components which culminated in the success of Operation Desert Storm in 1991. However, the success of AirLand Battle had a negative effect on how the maritime component integrated with the forces of AirLand Battle; therefore, a historical look at the

¹³ U.S. Pacific Command, *United States Pacific Command Strategy: Partnership, Readiness, Presence* (Camp H.M. Smith, HI: U.S. Pacific Command, 2009), 5.

growth toward greater Air Force and Navy interoperability is addressed as a precursor to Air-Sea Battle.

Air-Sea Battle is an “initiating concept” which aims to address emerging anti-access capabilities.¹⁴ In the second chapter, China’s emerging anti-access capabilities are discussed as a part of China’s military modernization. China’s expansion both economically and militarily poses one of the most complex security dilemma’s facing the United States and Japan. In 2004, China became Japan’s top trading partner.¹⁵ Additionally, under the China-ASEAN free trade agreement, the China-ASEAN trade volume is projected to expand to \$1.2 trillion.¹⁶ China’s economic wealth and influence enables it to engage regional countries and organizations in an effort to reassure its neighbors as to its regional ambitions and counter what could be perceived as a growing containment strategy of which the US-Japanese alliance is perceived as a key enabler.¹⁷ While China looks to reassure and counter-contain, its defense spending has nearly quadrupled since 1996 from just over \$40 billion to almost \$150 billion in 2009.¹⁸ The majority of this spending has been to modernize its military with an emphasis on “measures to deter or counter third-party intervention, including by the United States, in any future cross-Strait crisis.”¹⁹ The combination of defense spending and vision has led

¹⁴ General Norton Schwartz (speech, National Defense University, Distinguished Lecture Program, Washington DC, December 15, 2010), 4.

¹⁵ Evan S. Medeiros, *China’s International Behavior: Activism, Opportunism, and Diversification* (Arlington, VA: RAND, 2009), 127.

¹⁶ *Ibid.*, 128.

¹⁷ *Ibid.*, 129.

¹⁸ U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China* (Washington, DC: Government Printing Office, 2010), 42.

¹⁹ *Ibid.*, 29.

to Chinese internal defense investment in anti-access capabilities including air, sea, undersea, space and counterspace, informational warfare systems, and operational concepts.²⁰ The clash between global prosperity and regional security due to China's expansion will test the resilience of the US-Japan alliance. Combined development of the Air-Sea Battle concept could prove to be a pivotal capability to deter conflict in a region where access to the global commons is vital to the national interests of United States, Japan, and many other nations sharing common interests.

Chapter Three will outline the initial concepts behind Air-Sea Battle, its application as a deterrence concept in the Northeast Asia, and introduce the criticality of strong, stable U.S.-Japan alliance to the operational success of the Air-Sea Battle concept. In the Center for Strategic and Budgetary Analysis (CSBA) study, "AirSea Battle: A Point-of-Departure Operational Concept," one of the principle assumptions is that "the defense of Japan remains a strategic and operational imperative of the first order."²¹ The changing strategic dynamic in Asia with the rise of China coupled with the complex operational environment of the Northeast Asia is leading to a strategic change in focus. The Air-Sea Battle concept provides a roadmap to deterring the growing anti-access threat in Northeast Asia. It seeks to bridge the operational myopia gap between Middle East conflict and Northeast Asia conflict by providing an operational approach to deter China's military potential through counter anti-access capabilities and the strength of the U.S.-Japan alliance. The US-Japan alliance is vital to countering anti-access strategies in the Northeast Asia. Combined US-Japan cooperation on the development of Air-Sea

²⁰ *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 29.

²¹ Jan Van Tol et al., 30.

Battle is imperative for operational success. Therefore, at both the strategic and operational levels, the United States must foster an alliance that is focused on regional deterrence and stability and as interoperable as possible to ensure the United States and Japan can achieve their mutual goals in the region.

Chapter Four will discuss the U.S.-Japan alliance and measures the two states have taken to address the growing concern over China. The advanced capabilities of China's anti-access network are a potential source for asymmetric capability gaps to develop. The discussion in this chapter will focus on the capabilities of Japan's Self-Defense Force to meet China's military modernization as they relate to Air-Sea Battle concepts. Additionally, reliance on Japan for access to forward basing will continue to be a focus area for the U.S.-Japan alliance. The United States benefits from strong ties with Japan, however, as Japan continues to develop its capacity to meet regional challenges, the United States should be cognizant of how U.S. forces are portrayed and received, especially by the people of Japan. This chapter will also touch issues surrounding the U.S.-Japan alliance regarding implementing a combined Air-Sea Battle concept. It is critical that the U.S. and Japan fully develop the interoperability of their defense systems to mitigate the effects of a strong anti-access capability emanating from China.

This thesis strives to present the Air-Sea Battle "initiating concept" as a viable deterrence concept to China's outward military expansion. Key to this deterrence concept is the ability for the U.S.-Japan military processes and capabilities to seamlessly integrate in the event of offensive actions against Japan by China. The historical precedent found in AirLand Battle, the successful gains in joint interoperability, and the military compatibility of the U.S.-Japan alliance are enabling the development and

integration of Air-Sea Battle into an invaluable concept for deterrence. This thesis is not designed to describe the details of U.S.-Japan interoperability, nor will it describe in detail on-going efforts by the U.S. Air Force and Navy in developing Air-Sea Battle. The discussion within this text is an unclassified look at an emerging problem-set that is coming into focus in the aftermath of the U.S. military's operational myopia with the Middle East and within the context of today's strategic environment.

CHAPTER 1

THE NEED FOR AN OPERATIONAL CONCEPT

For current militaries undertaking new roles in a changing environment, the AirLand Battle experience is instructive. For an ideational reform to take place there needs to be a clear problem to address, strong organizational leadership and a professional orientation of effectiveness not tied to previous practice.¹

Air-Sea Battle is founded in the AirLand Battle concept developed in the early 1980's as a result of the United States Army's shift from fighting in the jungles of Vietnam back to a world with the greatest potential for conflict centered in Eastern Europe between North Atlantic Treaty Organization (NATO) and Warsaw Pact forces. Although the strategic environment between the Cold War in Eastern Europe, post-Vietnam, and today's changing strategic environment in the Northeast Asia is separated by time as well as circumstance, there are key similarities that warrant discussion. This chapter will trace the origins of the AirLand Battle concept framed in the 1982 U.S. Army FM 100-5, Operations. The discussion will provide a historical context to the development of Air-Sea Battle by examining the evolution of U.S. Army doctrine culminating in the AirLand Battle Concept adopted in 1982 by U.S. Army leadership while resetting itself in the post-Vietnam strategic environment. This chapter will conclude with the introduction of the Air-Sea Battle "initiating concept" as it relates to the historical AirLand Battle concept.²

¹ Richard Lock-Pullan, "How to Rethink War: Conceptual Innovation and AirLand Battle Doctrine," *The Journal of Strategic Studies* 28, no. 4 (August 2005), 696.

² Schwartz, 4.

AirLand Battle: Breakthrough Doctrine for Air Force-Army Interoperability

The strategic environment the U.S. faced exiting the Vietnam War was that of the continuing conflict between East and West. Strategic deterrence theory had progressed in light of the nuclear age from that of massive retaliation and mutually assured destruction, to flexible response. The strategy of flexible response postulated that because of the threat of conflict escalation leading to mutual destruction, U.S. and allied forces should respond in-kind to an attack by conventional Soviet forces and through the development of a strong NATO alliance, technology, doctrine, and training, Soviet leadership would see any attack on Western Europe as undesirable.³

Cold War deterrence theory is broadly characterized by a “general deterrence” concept as defined by Patrick Morgan in his book *Deterrence Now*. “General deterrence” is presented as coming into play “where two or more actors have a potential for significant conflict so the idea of war is not irrelevant or farfetched.”⁴ The Soviet threat postured against NATO forces dominated the strategic environment in which AirLand Battle was developed. However, the strategic environment also included conflicts that spanned from regional conventional war, such as the 1973 Arab-Israeli War, to unconventional conflicts such as Vietnam, Somalia, and Panama.⁵ These conflicts led the U.S. Army to focus on the tactical level of warfare and the development of doctrine and training uniquely suited to limited conflicts with limited aims.

³ Patrick M. Morgan, *Deterrence Now* (London: Cambridge University Press, 2003), 81.

⁴ Ibid.

⁵ John L. Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982* (Fort Monroe, VA: Historical Office, United States Army Training and Doctrine Command, 1984), 2.

U.S. involvement in Vietnam stemmed from the greater threat of an expanding Communist sphere of influence moving across Asia. However, prolonged U.S. involvement in the Vietnam conflict led to an Army increasingly focused on the tactical level of war, while retaining a vast capability to respond to the large threat posed by the Soviet Union against Western Europe. The forces and resources available to oppose the Soviet threat were part of the larger NATO construct which provided forward basing for U.S. forces and were protected by the U.S. nuclear umbrella. This flexible deterrent posture enabled the U.S. military to focus resources on the operations in Vietnam. The U.S. military's technological edge in weaponry and combined arms was overwhelming against North Vietnamese conventional forces, but against Vietcong insurgents and irregular forces, U.S. forces were unable to secure U.S. strategic objectives. The reasons why the U.S. became involved in the Vietnam conflict are outside the scope of this paper. However, although the U.S. was heavily involved in the Vietnam conflict, the strategic environment that existed during the U.S.'s period of engagement was dominated by the overwhelming conventional threat posed by the Soviet Union towards Western Europe. Due to the prolonged conflict in South-East Asia, the U.S. Army (and arguably the U.S. military), underwent a period of operational myopia wherein the Vietnam conflict drove the majority of policy and strategy throughout the 1960's and early 1970's. In turn, this forced a shift in resources away from the dominant threat [USSR] to a lesser yet more prevalent threat [North Vietnam]. Additionally, the U.S. Army as an institution paid a price due to the nation's commitment to the Vietnam conflict. This price was primarily in training and morale. Because of the lack of training and faltering morale, the U.S. Army turned to its core competencies and the period before Vietnam for answers.

AirLand Battle was a return to what the Army was designed for coming out of World War II and through the 1950's, that of being "a main-force European mechanized army."⁶ However, in returning to its roots in the post-Vietnam era, the U.S. Army was faced with two issues warranting a change in how it approached warfare. The first was the closing of the technology gap between the United States and Soviet Union. In his article, "Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982," John L. Romjue states, "to look back over that decade [1970's] is to be struck by the slugging national awareness of the massive buildup of Soviet arms and the delayed political response to the Soviets' increasingly bold power moves, directly and by Cuban proxy, in Africa, the Middle East, and Latin America."⁷ The second issue the U.S. Army faced was that of an identity crisis. In his article, "How to Rethink War: Conceptual Innovation and AirLand Battle Doctrine," Dr. Richard Lock-Pullan postulates, "there was far less stability concerning the identity of the army as an all-professional force, and it is the developments that were undertaken to address this issue that allowed the army to re-conceive itself and war. It did not necessarily change its nature but it changed how it understood itself and warfare."⁸

AirLand Battle was a deliberate effort by U.S. Army leadership to move away from the tactical level of war and address the operational level of war. The leader behind the AirLand Battle concept was the Commander, U.S. Army Training and Doctrine Command (TRADOC), General Donn A. Starry. In 1981 General Starry published an article titled, "Extending the Battlefield." In this article, General Starry emphasizes the

⁶ Lock-Pullan, 696.

⁷ Romjue, 1-2.

⁸ Lock-Pullan, 696.

deterrent nature of his battlefield concept. He writes, “In peacetime, the purpose of military forces, especially in the context of operations in areas critical to US interests, is to reduce to a minimum whatever incentives the enemy’s leadership might perceive as favorable to seeking military solutions to political problems.”⁹ However, the existing U.S. Army doctrine at the time was the doctrine known as Active Defense. Active Defense was the framework for U.S. Army doctrine espoused by General William E. DePuy, first Commander of TRADOC, who in developing Active Defense gave the U.S. Army the tactical clarity necessary to reset itself in the wake of Vietnam.

Active Defense focused on front-line defensive force, combined arms to influence follow-on forces, and the mobility of armored and mechanized reserve forces to meet the enemy at decisive points thereby permitting battlefield success against numerically superior forces. In his article, Romjue explains “trading space for time, the covering force enabled the main body of defending forces to deploy to prepared defenses.”¹⁰ Active Defense doctrine provided tactical solutions to the strategic environment faced by the U.S. Army as it withdrew from Vietnam and refocused on the strategic threat of the Soviet Union. In reviewing Active Defense doctrine, General Starry noted that although many critics of Active Defense stated the concept lacked a more robust notion of the offensive, it “was indeed the active defense which stopped the enemy and destroyed his attacking force first, before U.S. forces would go over to the offensive.”¹¹ These thoughts on giving ground would be included in General Starry’s article “Extending the

⁹ General Donn A. Starry, “Extending the Battlefield,” *Military Review*, *Military Module* 77, no. 1 (January/February 1997), 151. Although written in 1981, *Military Review* published “Extending the Battlefield” as part of its January-February 1997 edition.

¹⁰ Romjue, 10.

¹¹ *Ibid.*, 15.

Battlefield.” In his article he states that against an overwhelming force, the U.S. and its NATO allies needed to adopt a strategy that was “designed to preserve the territory, resources and facilities of the defended area for the defender.”¹² The European continent allowed for some trading of space for time. However, as General Starry went on to explain, “the purpose of military operations cannot be simply to avert defeat, but, rather, it must be to win.”¹³

A critical factor in shaping the AirLand Battle doctrine was that of developing Soviet tactics. Soviet tactics called for a multitude of maneuver units attacking simultaneously across the front in relative equal strength such that U.S. and NATO forces would not be able to discern the main thrust. At any point along the front, based on the strength of the defense, Soviet forces supported by armor forces could breakthrough and thereby “initiate [the] collapse in the defender’s system of defense.”¹⁴ Developing Soviet tactics which precluded a single decisive thrust in which the tactics of “Active Defense” could be executed led to General Starry’s development of the Extended Battlefield concept and then to AirLand Battle. The AirLand Battle concept developed at TRADOC sought to provide that key operational art linkage between tactics and strategy focusing on synchronizing battles in time, and space in order to achieve the desired outcome on the battlefield.

In 1982, the U.S. Army Field Manual (FM) 100-5, Operations, defined the operational level of war in the following manner:

¹² Starry, 153.

¹³ Ibid., 151.

¹⁴ Ibid., 153.

The operational level of war uses available military resources to attain strategic goals within a theater of war. Most simply, it is the theory of larger unit operations. It also involves planning and conducting campaigns. Campaigns are sustained operations designed to defeat an enemy force in a specified space and time with simultaneous and sequential battles. The disposition of forces, selection of objectives, and actions taken to weaken or to outmaneuver the enemy all set the terms of the next battle and exploit tactical gains. They are all part of the operational level of war.¹⁵

In this context, AirLand Battle was developed to stress the importance of achieving the ultimate outcome of war: victory. In the 1982 version of FM 100-5, the AirLand Battle doctrine is described as “an approach to fighting intended to develop the full potential of US forces.” The Army’s major challenge, that of armored, mechanized, and combined arms battle, was not isolated to the Soviet threat to Western Europe, but also had implications for the Middle East and the Korean peninsula.¹⁶ This global engagement required the elevation of U.S. Army doctrine, mired in tactics, to that involving the joint efforts of all services and U.S. allies; “As it has been throughout the twentieth century, teamwork in joint and combined operations will be an essential ingredient of any battles the Army will have to fight.”¹⁷

Commanders executing AirLand Battle would find success on the battlefield by following the basic tenets of AirLand Battle: initiative, depth, agility, and synchronization.¹⁸ These tenets were designed for AirLand Battle, utilizing all means available, to “secure or retain the initiative and exercising it aggressively to defeat the

¹⁵ U.S. Department of the Army, *Field Manual 100-5, Operations*, (Washington, DC: Government Printing Office, 1982), 2-3.

¹⁶ Romjue, 45.

¹⁷ *Field Manual 100-5*, 1-5.

¹⁸ Lock-Pullan, 691.

enemy.”¹⁹ These tenets along with the conceptual use of “all means available” resound in the operational level of warfare. These four tenets focused efforts on retaining independence of action through initiative; managing time, distance, and resources across the depth of the entire battlefield in order to employ fire and maneuver to destroy, disrupt, or delay the enemy; providing flexible organizations and leaders who can act faster than the enemy-to see and to react rapidly to changing circumstances; and synchronizing operations to achieve maximum combat power, by ensuring absolute unity of effort through a thorough understanding of the higher commander’s concept.²⁰ The tenets of AirLand Battle provided the basis on how the U.S. Army could focus the joint and combined capabilities of the U.S. military against an enemy in order to achieve the strategic objectives of an operation or campaign. Additionally, this operational concept set the foundation for the utilization of current capabilities and laid the operational framework for the integration and development of future U.S. Army systems.

In “Extending the Battlefield,” General Starry highlights the fact that some of the concepts of interdicting enemy forces beyond the front-line forces required capabilities that were limited or non-existent. He argues that there is greater risk to U.S. forces by delaying the adoption of a new operational concept needed to address a threat to U.S. national interests than waiting to adopt the concept when the means to achieve the ends mature.²¹ General Starry shifted the relationship between technology and army doctrine to one where the doctrine dictated the technological requirements.²²

¹⁹ *Field Manual 100-5*, 2-1.

²⁰ *Ibid.*, 2-2.

²¹ Starry, 159.

²² Lock-Pullan, 684.

AirLand Battle was conceived in the post-Vietnam era where political and fiscal constraints dominated the strategic environment. The internal struggle to redefine its core capabilities led the U.S. Army to adopt a back-to-basics approach within the context of a strategic environment dominated by the Soviet Union and the potential for massive conventional and/or nuclear war in Central Europe between NATO and Warsaw Pact forces. Generals DePuy and Starry led TRADOC initiatives that enabled the U.S. Army to first reset and then expand culminating in the 1982 AirLand Battle Operational Concept. AirLand Battle was the first doctrinal encapsulation of an operational concept which refined the way the U.S. Army would fight. The 1982FM 100-5 highlighted the operational art of connecting means to ends through the initiative, depth, agility, and flexibility of AirLand Battle.²³

Breaking Down the Stovepipes: Institutionalizing Air Force-Navy Interoperability

AirLand Battle prepared the U.S. Air Force and Army for operations in the late 20th century by encouraging the development of joint tactics, techniques, and procedures (TTPs) and inculcated AirLand Battle through simultaneous development of doctrine, organization, training, and education. The fruits of these labors led to the success of U.S. and coalition forces developed under the guise of AirLand Battle. Nearly thirty years after adopting AirLand Battle, Air-Sea Battle looks to capture that same ingenuity found in AirLand Battle; however, Air-Sea Battle will require an even more rigorous joint approach to the anti-access problem set requiring “more disciplined spending, efficiency, innovation, and inter-service integration and interoperability.”²⁴ Air-Sea Battle aims to

²³ *Field Manual 100-5*, 2-1.

²⁴ Schwartz, 4.

provide the U.S. military, an operational “way” to guide the way U.S. armed forces reset after nearly twenty years of operational myopia in the Middle East.

Air-Sea Battle is an operational concept for a clear strategic problem. Air-Sea Battle is envisioned, as expressed by General Norton Schwartz, Air Force Chief of Staff, to be a “permanent, more strategic relationship” between the U.S. Air Force, Navy and Marine Corps comprising of three dimensions: institutional, conceptual, and material.²⁵ The challenge to Air-Sea Battle is whether or not it will be able to achieve its “vision”. General Schwartz highlights this challenge by stating, “Air-Sea Battle—unlike previous and even ongoing and current Navy, Marine, and Air Force collaboration—is about maintaining and improving U.S. expeditionary power projection capability. If we are not producing this specific result through strengthening current Navy, Marine, and Air Force collaboration, then it is not Air-Sea Battle.”²⁶ As outlined in the NSS, QDR, and as recently as the 2011 National Military Strategy (NMS), the global conditions are right for an Air-Sea Battle concept to move forward with strong leadership and a shared vision to counter an anti-access environment, in particular the potential anti-access environment posed by China’s military modernization.

The collision between resetting U.S. military forces while facing major U.S. budget constraints demands leadership, initiative, and discipline to institutionally reform in order to meet the challenges that a rising China presents. In his 2007 report “Combat Pair: The Evolution of Air Force-Navy Integration in Strike Warfare,” RAND consultant Benjamin S. Lambeth states that in many cases of Air Force-Navy integration initiatives,

²⁵ Schwartz, 4.

²⁶ Ibid., 6.

the primary limiting factor to the “institutionalization” of the initiatives was that “being insufficient funds to support them.”²⁷ Facing a \$13.98 trillion national debt, the Department of Defense needs to ensure that institutionally its military services ensure the capabilities developed to achieve U.S. strategic goals are within the means of the nation. Service parochialism will only serve to increase the risk to mission failure. Therefore, institutional change is required for the success of Air-Sea Battle. Fortunately, due to the efforts of the Air Force and Navy over the past twenty years, they are in a position to elevate Air-Sea Battle to a true joint endeavor.

Institutionally, the Air Force, Navy, and Marine Corps have made great strides along the path of interoperability since 1991’s Operation Desert Storm, the U.S.-led coalition to liberate Kuwait. Benjamin Lambeth’s RAND study traced the institutional change in the U.S. Navy as it transitioned from a lack of interoperability between the Air Force and Navy, prior to Operation Desert Storm, due to cultural stovepipes and divergent strategies, to one of close, integrated joint air and sea operations. During the Vietnam conflict the Air Force and Navy’s inability to synchronize joint air operations throughout the Vietnam conflict stands out as one of the key times where Air Force and Navy interoperability was at its worst.²⁸ Regarding this lack of interoperability, Lambeth states that “different Air Force and Navy operating procedures essentially made integration between the two services in air warfare functionally impossible. At the bottom, the main focus of the two services’ flight operations over both North and South

²⁷ Benjamin S. Lambeth, *Combat Pair: The Evolution of Air Force-Navy Integration in Strike Warfare* (RAND, 2007), xii.

²⁸ Ibid., 5.

Vietnam was simply staying out of each other's way."²⁹ This lack of interoperability spilled over from the tactical to the operational level of warfighting where service stovepipes in operations "had the effect of diminishing the overall efficiency of air operations by the two services."³⁰ In the aftermath of Vietnam, the lack of interoperability persisted, not only due to the stovepipe mentality, but also due to service mission and doctrine as the U.S. continued its Cold War strategies against the former Soviet Union. As stated earlier, Air Force doctrine in the post-Vietnam era was integrated with the U.S. Army in AirLand Battle. However, the U.S. Navy was largely left on its own to continue its traditional mission of forward presence in support of national objectives.³¹ In particular, against the Soviet Union, the Navy was tasked predominately to protect the sea-lines of communication (SLOCs) and defeat shore-based Soviet naval air forces.³² In short, the Air Force was "preparing to fight joint operations in shared battlespace with the Army and with U.S. NATO allies in Central Europe" while the U.S. Navy was not.³³

Progress towards greater Air Force and Navy interoperability continued through the 1980's with the passage of the 1986 Department of Defense Reorganization Act, otherwise known as the Goldwater-Nichols act. Among the numerous requirements levied on the Chairman of the Joint Chiefs of Staff, was that of "developing doctrine for

²⁹ Lambeth, 5.

³⁰ Ibid., 6.

³¹ Ibid., 5.

³² Ibid., 8.

³³ Ibid., 9.

the joint employment of the armed forces.”³⁴ On the heels of Goldwater-Nichols was the first major test of the new defense organization in Operation Desert Storm. Although utilizing the Joint Force Air Component Commander (JFACC) construct for controlling the air capabilities of the combined forces, the challenge of synchronizing the air forces of the Navy and Air Force continued to be hampered by the communications architecture established in theater.³⁵ Additionally, Operation Desert Storm showed a lack of precision guided strike capabilities resulting from a lack of joint munitions development between the Air Force and Navy in the year’s preceding the operation. This capabilities gap was captured in one Navy strike-fighter squadron’s after action report regarding the Air Force’s precision-strike capabilities and the Navy’s lack of capability states that Operation Desert Storm “was eloquent testimony that naval aviation had apparently missed an entire generation of weapons employment and development.”³⁶

In 1992, six years after Goldwater-Nichols and just a year after Operation Desert Storm, the Navy and the Air Force published new strategies for their services. The Air Force, bolstered by the success in implementing one of the fundamental tenets of air power, centralized control, decentralized execution, through the JFACC and air-tasking order construct, published a review of its 1990 white paper “Global Reach—Global Power.” In the Air Force review, Secretary of the Air Force Donald Rice stated that

³⁴ *Goldwater-Nichols Department of Defense Reorganization Act of 1986*, Public Law 99-433, U.S. Statutes at Large 100 (1986): 1008.

³⁵ *Gulf War Air Power Survey* (Washington, DC: Government Printing Office, 1993), 2: 54. The Air Tasking Orders designed to control the tactical execution of the air war in Operation Desert Storm had to be flown out daily to the aircraft carriers operating in the Persian Gulf instead of being transmitted electronically through the Air Force’s Computer Assisted Force Management System (CAFMS).

³⁶ Strike Fighter Squadron 87, “Aircraft—Yes, Tactics—Yes, Weapons—No,” *Proceedings* (September 1991): 55, quoted in Benjamin S. Lambeth, *Combat Pair: The Evolution of Air Force-Navy Integration in Strike Warfare* (RAND, 2007), 16.

“mature use of airpower in the future will rely not just on advanced technology and concepts, but on ever-increasing complementarities between land and sea-based airpower, and between land, sea, air and space forces.”³⁷ The review goes on to address the importance of fiscal responsibility in addressing force upgrades and recapitalization. Of particular note, this review specifically states that “the Air Force and Navy both have an opportunity and responsibility to hone their cooperation for future air operations.”³⁸

The same year, the U.S. Navy published its white paper, “...From the Sea: Preparing the Naval Service for the 21st Century,” introducing a new strategy for the U.S. Navy implementing a major change in the Navy’s warfighting strategy. The doctrine stated:

This strategic direction, derived from the National Security Strategy, represents a fundamental shift away from open-ocean warfighting *on* the sea toward joint operations conducted *from* the sea. The Navy and Marine Corps will now respond to crises and can provide the initial, “enabling” capability for joint operations in conflict—as well as continued participation in any sustained effort. We will be a part of a “sea-air-land” team trained to respond to the Unified Commanders as they execute national policy.³⁹

According to the white paper, enabling littoral naval operations in support of the “decisive sea-air-land battle” would now be the key to 21st century U.S. naval power while joint operations between Navy and Air Force assets were described as the “standard” for operations.⁴⁰ Benjamin Lambeth in “Combat Pair,” states that this change

³⁷ Foundation Forum, *Global Reach—Global Power: The Evolving Air Force Contribution to National Security* (Washington, DC: Aerospace Education Foundation, 1992), 5.

³⁸ Ibid., 6.

³⁹ U.S. Department of the Navy, *...From the Sea: Preparing the Naval Service for the 21st Century* (Washington, DC: September, 1992), 1-2.

⁴⁰ Ibid., 6. *...From the Sea* defines the “littoral” as comprising two segments of the battlespace: (1) Seaward, the area from the open ocean to the shore which must be controlled to support operations ashore; and (2) Landward, the area inland from shore that can be supported and defended directly from the sea.

in U.S. Navy strategy “would prove essential for enabling the service’s [Navy’s] fullest possible participation as an equal player in future U.S. joint air operations.”⁴¹ These strategies coupled with real-world application would lead the Air Force and Navy towards greater cooperation and interoperability throughout the 1990’s and into the first part of the 21st century.⁴²

After the September 11, 2001 terrorist attacks on the United States, the U.S. found itself involved in two major combat operations, Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF). These operations enabled the Air Force and Navy to fully synchronize their efforts to achieve dominance throughout the area of operations. Air Force and Navy long and short range strike assets, centrally controlled through the Combined Air Operations Center (CAOC), supported by a networked array of Intelligence, Surveillance, and Reconnaissance (ISR) platforms provided the necessary linkages to enable U.S. forces and enhance mission success.⁴³ The coordination between these two services was so well executed that, as Landon states, “arguing over whether Air Force or Navy air power was more important in achieving the successful outcome of Enduring Freedom was about on par with arguing over which blade in a pair of scissors is

⁴¹ Lambeth, 26.

⁴² Ibid., 27-31. *Combat Pair* provides an account of Air Force-Navy Integration throughout the 1990’s. Regarding this development, on page 30-31 Mr. Lambeth states, “Without a doubt, the most sustained and influential factor in this bringing of the two services together in air warfare TTPs was the nations’ ten-year experience of Operations Northern and Southern Watch, in which both Air Force land-based fighters and Navy carrier-based fighters jointly enforced the no-fly zones imposed by the United Nations (UN) over northern and southern Iraq that were first put into effect shortly after the conclusion of Operations Desert Storm. That steady-state aerial policing function proved to be a true, real-world operations laboratory for the two services, and it ended up being the main crucible in which their integration in strike warfare was forged over time.”

⁴³ Ibid., 45-63.

more important in cutting the paper.”⁴⁴ In the case of Operation Iraqi Freedom, Landon states, “[OIF] was a true-joint-service effort involving wholly integrated Air Force and Navy strike operations.”⁴⁵

Exiting the major combat operations of the early 21st century, the Air Force and Navy are in a position to seize on the institutional changes manifested over the past thirty years since the U.S. military left Vietnam. Leadership, organization, doctrine, and technology have led the Air Force and Navy to an “out-front” position when faced with the complex problem set of enabling operations by securing access for U.S. forces through the air, maritime, space, and cyberspace domains. Institutionally, the foundations of Air-Sea Battle are firmly entrenched in Air Force and Navy doctrine.

This chapter outlined the history behind the U.S. Army AirLand Battle operational concept. In addition to assisting the U.S. Army in resetting itself after its lengthy involvement in Vietnam, AirLand Battle codified an operational level of war doctrine and set the foundation for the development and execution of the operational art concept of warfare. Strong senior leadership was crucial to the success and indoctrination of AirLand Battle and the inclusion of alliance partnerships as AirLand Battle matured, proved critical to its success in providing a credible deterrent, specifically against the Soviet threat to Europe. This combination of threat, leadership and unique characteristics is being adopted by the U.S. Air Force, Navy, and Marine Corps as the Air-Sea Battle “initiating concept” for the U.S. military to respond to the growing anti-access and area-denial threat posed by China. However, U.S. military response is not

⁴⁴ Lambeth, 49.

⁴⁵ Ibid., 62.

sufficient in an age of “geostrategic ambiguity and fiscal austerity.”⁴⁶ The success of the U.S. across the globe and in particular the Northeast Asia will be contingent on strong U.S. alliance partnerships. One of the cornerstones of these partnerships is that of the alliance between the United States and Japan. The next chapter addresses China’s anti-access capabilities and military modernization.

⁴⁶ Schwartz, 1.

CHAPTER 2

SHRINKING THE GAP: CHINA'S MODERNIZATION AND GROWTH IN ANTI-ACCESS CAPABILITY

If, in addition to facility for offence, Nature has so placed a country so that it has easy access to the high sea itself, while at the same time it controls one of the great thoroughfares of the world's traffic, it is evident that the strategic value of its position is high.¹

The previous chapter discussed the origins of an operational concept and how in the context of a changing environment, there needs to be a clearly defined problem, strong leadership to facilitate change, and a uniqueness to the concept setting it apart from existing concepts or doctrine. Just as AirLand Battle was uniquely suited for the environment in which it was developed, so too is the environment in which Air-Sea Battle is addressing. This chapter will identify the problem that China poses to U.S. and Japanese regional access due to China's military modernization and China's adoption of a military defense strategy that gives rise to anti-access capabilities. Additionally, this chapter will address how China's military modernization is reducing the capability gap between China's armed forces and other regional powers. The intent of this chapter is to inform the reader of the complex environment against which a deterrence concept for Air-Sea Battle is being shaped and the risk to regional stability through China's growing anti-access capabilities in Northeast Asia.

In 2001, the RAND study, "The United States and Asia: Toward a New U.S. Strategy and Force Posture," concluded that "the preeminent geopolitical factor in Asia for the next several decades would appear to be the emergence of China as a great

¹ Captain A.T. Mahan, *The Influence of Sea Power Upon History 1660-1783* (New York: Dover Publications, Inc., 1987), 31-32.

power.”² The study went on to conclude that by 2015, China could emerge as a multidimensional, regional competitor, meaning “as a military power that, while not a peer of the United States, could nonetheless assert itself in the immediate region so as to thwart U.S. political-military objectives.”³ In 2011, the Chairman of the Joint Chiefs of Staff, Admiral M.G. Mullen, released his guidance for the U.S. military which in part states; “in response to an aggressive North Korea and a more assertive China, our efforts to balance risk have increasingly focused on Asia.”⁴ Just as the Soviet Union utilized the period of the United States operational myopia regarding the Vietnam conflict to expand its military capacity, it appears that the Peoples’ Liberation Army (PLA) has utilized the United States operational myopia on the Middle East to undergo a modernization of its forces in order to better position itself in the region. Although the United States has not been blind to China’s modernization, it is likely that due to the United States’ Middle East centered priorities, China has utilized the nearly ten years since September 11, 2001 to decrease the military capabilities gap that exists between its forces and U.S. forces in the region.

China’s anti-access capabilities have not appeared overnight. In fact, the development of China’s anti-access capabilities stems from a deliberate period of modernization undertaken by the PLA beginning in the late 1980s and gained strength within PLA leadership in the aftermath of the first Gulf War between Iraq and the U.S. led coalition to liberate Kuwait. Qiao Liang and Wang Xiansui, both senior colonels in

² Khalilzad et al., 137.

³ Ibid., 141.

⁴ U.S. Joint Chiefs of Staff, *CJCS Guidance for 2011* (Washington, DC: U.S. Department of Defense, 2011), 5.

the PLA at the time of publishing their book, *Unrestricted Warfare*, use the backdrop of the Gulf War to emphasize the remarkable outcome of the confluence of the U.S. defense reorganization and the technological investment by the United States. This confluence of “jointness” coupled with the technologies of the post-Vietnam era led to one of the most remarkable campaigns of the 20th century as U.S. and coalition forces executed a 43 day campaign against Iraqi forces.⁵ In *Unrestricted Warfare*, Colonel’s Liang and Xiansui highlight this marriage of technology and organizational change:

No military force that thirsts for modernization can get by without nurturing new technology, while the demands of war have always been the midwife of new technology. During the Gulf War, more than 500 kinds of new and advanced technology of the 80s ascended the stage to strike a pose, making the war simply seem like a demonstration site for new weaponry. However, the thing that left a profound impression on people was not the new weaponry per se, but was rather the trend of systemization in the development and use of the weapons.⁶

The success of the U.S. military in the Gulf War gave China reason to address the gap in quality between the PLA and more advanced militaries.⁷ In order to bridge this gap, in the early 1990’s, the PLA adopted a new strategic goal from fighting a local, limited war to “winning a local, limited war under high-tech conditions.”⁸ Accordingly, the PLA turned to the former Soviet Union, purchasing over \$2 billion of its most sophisticated armaments and weapons.⁹

⁵ Diane T. Putney, *Airpower Advantage: Planning the Gulf War Air Campaign 1989-1991* (Washington, DC: Air Force History and Museums Program, 2004), 339.

⁶ Qiao Liang and Wang Xiansui, *Unrestricted Warfare* (Beijing: PLA Literature and Arts Publishing House, 1999), 11.

⁷ Brian Francis Lafferty, “Buildup: Chinese Defense Budgets in the Reform Era, 1978 to the Present” (PhD diss., Colombia University, 2009), 414.

⁸ Ibid.

⁹ Ibid., 413.

The force behind the ability to modernize the PLA was the phenomenal growth of the Chinese economy that began with the 1978 opening of China to western economic influences.¹⁰ Possessing the world's third largest economy with its 2009 gross domestic product at U.S. \$4.814 trillion,¹¹ China has sustained an average of 15.7% annual increase in defense spending since 1996.¹² China's strategic priorities bring context to its growth in defense spending and investment into its military's anti-access capabilities.

China's Strategic Outlook and Military Strategy: Active Defense

The Office of the Secretary of Defense *2010 Annual Report to Congress on China's Defense* outlines the following Chinese strategic priorities: (1) perpetuating Communist Party of China (CCP) rule; (2) sustaining economic growth and development; (3) maintaining domestic political stability; (4) defending China's national sovereignty and territorial integrity; and (5) securing China's status as a great power.¹³

Chinese economic growth, advances in military technology, and the lessons learned by the PLA's leadership by studying late 20th century Western military success against conventional threat led the Chinese military to accelerate its modernization efforts. In the early 1990s, PLA doctrine rapidly evolved from a largely defensive "Peoples War" construct, to consideration of new offensive doctrines and tactics under the rubric of "Active Defense," to the current stage of devising doctrines for "Joint

¹⁰ Bureau of East Asian and Pacific Affairs, "Background Note: China," *U.S. Department of State*, August 5, 2010, <http://www.state.gov/r/pa/ei/bgn/18902.htm#econ> (accessed January 7, 2011).

¹¹ Ibid.

¹² Lafferty, 5.

¹³ *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 15.

Warfare” under the goals of “Informationisation and Mechanisation.”¹⁴ Although professed as a purely defensive strategy, it is apparent that through a doctrine of “Active Defense” China’s doctrine is shifting from its defensive nature to one that “emphasizes the use of various combat forms and methods flexibly to achieve [its] strategic goals.”¹⁵

China’s most recent Defense White Paper, “China’s National Defense in 2008,” outlines the conditions for China’s National Defense in the early decades of this century. The document states that China’s national defense policy is one that is “purely defensive in nature.”¹⁶ Furthermore, it aligns its military policy with overarching national policy by stating that “China places the protection of national sovereignty, security, and territorial integrity, safeguarding of the interests of national development and the interests of the Chinese people above all else.”¹⁷ Key to the national sovereignty, security, and territorial integrity is the region reaching from the far northeast, through the Korean peninsula, across the East China Sea, past Taiwan, and into the South China Sea. Centered on Taiwan, this Western Pacific region provides the critical lifeline for China’s continued economic development. The major shipping lanes that pass through this region bring over half of the world’s annual merchant fleet tonnage through the Straits of Malacca and into the South China Sea region.¹⁸ However, as Beijing sees it, there

¹⁴ Jane’s Sentinel Security Assessment, “China and Northeast Asia.” *Jane’s Information Group* (October 15, 2010). <http://search.janes.com> (accessed October 15, 2010).

¹⁵ Michael Pillsbury, ed., *Chinese Views of Future Warfare*, Rev. ed. (Washington, DC: National Defense University Press, 1998), 54.

¹⁶ People’s Republic of China, *China’s National Defense in 2008*, (Beijing: Information Office of the State Council of the People’s Republic of China, 2009), 8.

¹⁷ Ibid.

¹⁸ Energy Information Administration, “South China Sea Region,” *U.S. Department of Energy* (March 2002), <http://www.eia.doe.gov/emeu/cabs/schina2.html> (accessed 9 January, 2011).

continues to be numerous challenges to China's sovereignty, flashpoints that are fueling the continued modernization of China's military as China looks to balance its strategic priorities. Three of these flashpoints, the Senkaku Islands, the Spratly Islands, and Taiwan all contribute to China's increasing capacity for anti-access doctrine and technologies.¹⁹

Figure 1: China's Disputed Territories



¹⁹ Arthur Waldron, "The Rise of China: Military and Political Implications," *Review of International Studies* 31 (2005): 723. The Senkaku Islands, administered by Japan, are claimed by China as the Diaoyutai; Energy Information Administration, "South China Sea Region," *U.S. Department of Energy* (March 2002), <http://www.eia.doe.gov/emeu/cabs/schina2.html> (accessed 9 January, 2011). Reference this article for further explanation of the specific territorial and ownership issues leading to claims made by China, Indonesia, The Philippines, Malaysia, Vietnam, and China. Brunei does not claim any of the Spratly Islands, but has declared an EEZ that includes portions of the Spratly Islands.

Source: U.S. Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China (Washington, DC: Government Printing Office, 2010), 16.

Of these three however, Taiwan continues to be the center piece and a key motivator behind China's continued military modernization.²⁰

In 2005, the Chinese government passed an "Anti-Secession Law" stating that "In the event that the Taiwan independence secessionist forces should act under any name or by any means to cause secession from China, or that major incidents entailing Taiwan's secession from China should occur, or that possibilities for a peaceful reunification should be completely exhausted, the state shall employ non-peaceful means and other necessary measures to protect China's sovereignty and territorial integrity."²¹ Though it claims sovereignty over Taiwan, China's overtones in this declaration clearly spell out a change in policy that allows for the shift in military strategy and doctrine that opens up the ability to employ offensive tactics in the event China deems it necessary to forcefully unify with Taiwan. China knows that the current military superiority and force projection capability of the U.S. supported by its allies, in particular Japan, is a threat to China in a Taiwan scenario. Therefore, preventing external interference in the event of a conflict over Taiwan is critical to China's success. China's growth in anti-access capability serves to provide China the ability to hedge against U.S. intervention on behalf of Taiwan and effectively slow the introduction of forces into the region by preventing U.S. forces

²⁰ *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 15.

²¹ Lafferty, 427-428.

from using forward bases or from conducting operations over much greater distances due to the threat from Chinese anti-access systems.²²

In addition to having the ability to respond to its strategic interests and influence the outcome of any settlement surrounding these flashpoints, the Chinese Communist Party realizes that its survival is predicated on manifesting the continued growth of the economy and that its ability to maintain and if needed control access to its economic lifelines along its eastern coast. In 2007, an independent study was published by the Council on Foreign Relations, stating the following objectives for China's foreign policy in light of its growing global influence and desire to reclaim its status as a respected great power: (1) Building cooperative relations with the United States while preventing the emergence of any coalition targeting China; (2) Maintaining a zone of peace around China to enable the country to pursue its domestic agenda, especially economic strengthening, while expanding its regional influence; and (3) securing and diversifying access to natural resources (especially energy supplies) needed to fuel China's economic engine.²³ China's economic growth will rely on its ability not only to leverage resources from states in close proximity, but will also require investment in states worldwide. It seems logical that along with these foreign interests would be the requirement to protect and defend those areas that China deems in its national interest. It is this potential for

²² Roger Cliff et al, *Entering the Dragon's Lair: The Implications of Chinese Antiaccess Strategies and Their Implications for the United States* (Arlington, VA: RAND, 2007), xiv. An antiaccess measure is considered to be any action by an opponent that has the effect of slowing the deployment of friendly forces into a theater, preventing them from operating from certain location within that theater, or causing them to operate from distances farther from the locus of conflict than they would normally prefer.

²³ Dennis C. Blair and Carla A. Hills, *U.S.-China Relations: An Affirmative Agenda, A Responsible Course* (New York: Council on Foreign Relations, April 2007), 34. The Council on Foreign Relations is an independent, national membership organization that publishes the *Foreign Affairs* journal.

expansion that the offensive capabilities of China's military modernization are justified and provide the background for China's anti-access capabilities.

Active Defense through “Mechanization” and “Informationization”

China's military strategy is guiding its military modernization fostered by consistent double-digit defense spending increases and acquisition of key weapons systems which are “improving its [China's] capacity for force projection and anti-access/area denial.”²⁴ The 2010 Department of Defense Annual Report to Congress on China's military and security developments provide the baseline for the growth in China's anti-access capabilities. China's military modernization based on “mechanization” and “informationization” combined with the strategic vision as described above is bringing China's capabilities closer to being able to adequately affect the military capabilities of the United States and its allies.²⁵ China's growth in military capacity and in its ability to synchronize its efforts as a joint force is leading its capability to project power beyond what it considers to be its primary maritime defense perimeter; the First Island Chain (Figure 2, p. 36).²⁶

²⁴ *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 1.

²⁵ *China's National Defense in 2008*, 10.

²⁶ *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 23.

Figure 2: The First and Second Island Chains.



Source: U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China* (Washington, DC: Government Printing Office, 2010), 23.

In his book *The Great Wall at Sea*, Bernard Cole outlines the “Island Chain” concept in the view of a three-phased “offshore defense” strategy developed in the late 1980’s by General Liu Huaqing, commander of the PLA(N) from 1982 to 1987. In his “offshore defense” strategy, the PLA(N) modernization timeline was based on the growing strategic interest in the Pacific region, the expanding role of China in the wake of its economic and military rise, and the need to develop its own naval capacity to “safeguard China’s coast, resist possible foreign invasions, and defend our [China’s]

maritime rights and interests.”²⁷ The “Island Chain” concept gives operational context for the conduct of China’s military modernization through “mechanization” and “informationization.” Under General Liu’s “offshore defense” strategy, the “First Island Chain” correlated to the first-phase of “offshore defense” and included those areas that are considered vital to China’s national interests: “territorial claims, natural resources, and coastal defense.”²⁸ Phase-two of “offshore defense” incorporates the “Second Island Chain” and aspired to extend China’s control over all of East Asia’s oceans by 2020, and phase-three would bring the PLA(N) to a “global force” level by 2050.²⁹

China’s growth in anti-access capabilities has risen predominately through the modernization of its naval, air force, and ballistic missile forces and through taking the initial steps towards the “informationization” of the combined arms of the PLA. This increase in capability both in modernization and the introduction and application of modern computer networks and command and control architectures are reducing the capabilities gap between the U.S. and China’s military capabilities. This combination of a strategy with the requisite capability to implement that strategy creates a mix that if left unchecked could introduce a level of uncertainty and instability that threatens the region security and could have global impacts.

²⁷ Bernard D. Cole, *The Great Wall at Sea: China’s Navy Enters the Twenty-First Century* (Annapolis, MD: Naval Institute Press, 2001), 165.

²⁸ Ibid., 166. Under General Liu’s concept, control of this area would be notionally achieved by 2000.

²⁹ Ibid., 166-167.

People's Liberation Army Navy (PLA(N))

The 2010 Annual Report to Congress highlights the PLA(N) as the “largest force of principle combatants, submarines, and amphibious ships in Asia.”³⁰ Taking lessons from the U.S. military success in the Gulf War and the advances in military technology, the PLA(N) has utilized the past two-decades to introduce changes in doctrine, equipment, and training. The 2008 Defense White Paper outlines that “the Navy [PLA(N)] has been striving to improve in an all-round way its capabilities of integrated offshore operations, strategic deterrence and strategic counterattacks, and to develop gradually its capabilities of conducting cooperation in distant waters and countering non-traditional security threats, so as to push forward the overall transformation of the service.”³¹ Elements of this naval modernization contribute to China's anti-access capabilities and contribute to security concerns in Northeast Asia.

China's surface combatant fleet continues to undergo modernization with an emphasis on an “advanced anti-air warfare capability.”³² The PLA(N) destroyer and frigate classes of ships include formidable offensive and defensive systems that contribute to the anti-access capability of the PLA(N). Russian built Sovremenny-class destroyers and five classes of China's indigenous destroyers; Luhui, Luhai, Luyang I & II, and Louzheu, comprise the PLA(N) destroyer modernization efforts. Air defense and anti-ship missile systems are comprised of the SS-N-22 Sunburn and YJ-83 Anti-ship

³⁰ *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 2. China's naval forces include some 75 principle combatants, more than 60 submarines, 55 medium and large amphibious ships, and roughly 85 missile-equipped patrol craft.

³¹ *China's National Defense in 2008*, 31.

³² CRS Report for Congress, *China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress*, by Ronald O'Rourke (Washington, DC: Congressional Research Service, August 26, 2010), 21.

Cruise Missile (ASCM) systems, and the SA-N-20, SA-N-7B Grizzly, and HHQ-9 surface-to-air (SAM) systems. Controlled by the Russian-made TOMBSTONE and Chinese-made SPY-1 type phased array radars, these systems provide a formidable anti-access threat to U.S. and allied air forces.³³

Complimenting the PLA(N) surface fleet modernization is the modernization of the PLA(N) submarine fleet. China's six-classes of submarines provide a key sub-surface component to China's anti-access capability and shows increased complexity in the weapons carried and design characteristics. ASCMs carried by Chinese submarines include the SS-N-27 Sizzler, YJ-82, with on-going development of the CH-SS-NX-13.³⁴ Two classes of submarines, the Jin-class SSBN armed with the JL-2 nuclear-armed submarine-launched ballistic missile (SLBM) and the Shang-class SSN are submarines capable of threatening land-based targets throughout the region.³⁵ The PLA(N) submarine fleet modernization is a key element of the PLA(N) anti-access capability, as such, over the next 10-15 years, the force is expected to increase incrementally in size to approximately 75 submarines.”³⁶

The PLA(N)s surface and submarine fleets is bolstered by a robust People's Liberation Army Naval Air Force (PLANAF) tasked to carry out coastal defense, long-range maritime strike. The PLANAF is currently a land-based force operating the SU-30MK2 Flanker fighter-bomber, armed with AS-17/Kh-31A anti-ship missiles and FB-7

³³ CRS Report for Congress, 22-23.

³⁴ *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 16.

³⁵ *Ibid.*, 19.

³⁶ U.S. Department of the Navy, *The People's Liberation Army Navy: A Modern Navy with Chinese Characteristics* (Suitland, MD: Office of Naval Intelligence, 2009), 21.

fighter-bombers for maritime interdiction.³⁷ These fighter aircraft combined with the H-6 Badger medium-range bomber and JH-7 fighter-bomber increase the capacity for the PLA(N) to threaten U.S. forward basing capacity in Okinawa and throughout much of southern Japan.³⁸

China's aspirations for an operational aircraft carrier continue to be a part of its modernization goal. China is pursuing its own aircraft carrier program and is it possible that China will have one to two operational aircraft carriers in its fleet by 2020 employing the SU-33 [naval] Flanker thereby enhancing China's ability to protect its maritime territorial integrity as well as operate "outside the envelope of Chinese land-based air defenses."³⁹

The PLA(N)'s surface and submarine fleets are critical components in China's defense of the "First Island Chain." The naval air forces and subsurface fleet extends that reach out beyond the "First Island Chain" towards the "Second Island Chain." Continued modernization of the PLA(N) and PLANAF, in particular the addition of an aircraft carrier and the continued "informationization" of the PLA(N), extends the Chinese military's operational reach out to the "Second Island Chain" thereby facilitating the capacity to conduct missions outside China's traditional operating environment. Complementing China's naval modernization is the simultaneous advancements in China's Air Force.

³⁷ *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 33.

³⁸ *The People's Liberation Army Navy: A Modern Navy with Chinese Characteristic*, 24.

³⁹ CRS Report for Congress, 28; *The People's Liberation Army Navy, A Modern Navy with Chinese Characteristics*, 19.

Peoples Liberation Army Air Force (PLAAF)

China's military strategy of active defense and operational goal of winning wars in conditions of informationization requires the continued modernization of the PLAAF into a fighting force "capable of both offensive and defensive operations."⁴⁰ The 2010 Department of Defense Annual Report to Congress highlights that "the PLAAF has the leading role in the "Joint Anti-Air Raid" campaign, which appears to form the basis for much of China's planning for anti-access...operations."⁴¹ It goes on to state that "it is likely that the primary focus...will remain on building the capabilities required to pose a credible military threat to Taiwan and U.S. forces in East Asia [i.e. Japan and Korea], deter Taiwan independence, or influence Taiwan to settle the dispute on Beijing's terms."⁴² This change in PLAAF doctrine is facilitated by the continued improvements of PLAAF combat assets. In his briefing, "Potential Effects of Chinese Aerospace Capabilities on U.S. Air Force Operations," Senior RAND Researcher, Jeff Hagen lists three modernization thrusts undertaken by China: anti-access threats to U.S. basing, state-of-the-art surface-to-air (SAM) defenses and a 4th generation air force with precision air-to-ground and air-to-air capabilities.⁴³

Chinese H-6 bombers already have the capability to employ air-launched cruise missiles from within Chinese airspace against Okinawa, Japan, and the Korean

⁴⁰ *China's National Defense in 2008*, 35; *Ibid.*, 36.

⁴¹ *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 25.

⁴² *Ibid.*

⁴³ Jeff Hagan, "Potential Effects of Chinese Aerospace Capabilities on U.S. Air Force Operations" (testimony presented before the U.S-China Economic and Security Review Commission, Arlington, VA, May 20, 2010), 1.

Peninsula.⁴⁴ Additionally, an updated air-refueling capability utilizing a more robust aircraft akin to the Russian IL-78 tanker aircraft could also increase the PLAAF H-6 bombers operational range. This capability places the lucrative U.S. base on Guam at a greater risk from PLAAF targeting, especially when coupled with a new long-range cruise missile.⁴⁵

China is developing a missile defense “umbrella” with a kinetic energy intercept capability against ballistic missiles and other aerospace vehicles.⁴⁶ This ‘umbrella’ consists of PLAAF long-range SAM systems including the SA-10, SA-20 PMU1, and SA-20 PMU2.⁴⁷ Additionally, China’s HQ-9 SAM system is also reportedly capable of ballistic missile defense and low-altitude cruise missile defense.

The PLAAF has approximately 490 combat aircraft within unrefueled operational range of Taiwan.⁴⁸ The modernization of its fighter fleet to include the J-11B (an indigenous copy of the SU-27 Flanker), the J-10, and JH-7A bring formidable platforms to the PLAAF that can easily cover the distance between mainland China and Taiwan. These fighters are capable of employing precision munitions, advanced air-to-air missiles, and sophisticated electronic warfare suites.

⁴⁴ Michael P. Flaherty, “Red Wings Ascendant: the Chinese Air Force Contribution to Anti-access,” *Joint Forces Quarterly* 60 (First Quarter 2011): 100.

⁴⁵ Hagan, 2.

⁴⁶ *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China*, 33.

⁴⁷ Hagan, 4. The SA-20 PMU2 (200km range) is the most advanced Russian export SAM and has ballistic missile engagement capability.

⁴⁸ *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China*, 62. Includes PLANAF aircraft.

Continued PLAAF modernization of its fighter force is of concern and recently gained new emphasis with the first flight of the J-20 stealth fighter.⁴⁹ Although it is still a number of years before a credible stealth capability will be introduced to the PLAAF, the timeline for its development was earlier than expected by most defense experts and the introduction of a 5th-generation stealth fighter into China's anti-access capability will pose an additional challenge to U.S. and allied forces especially when acting in a counter anti-access role.

Land-based Ballistic Missile Systems

China's anti-access capabilities are magnified by the integration of an extensive ballistic and cruise missile capability that enable Chinese anti-access assets to cover both the "First" and "Second" island chains and threaten U.S. assets and regional interests. The PLA's land-based ballistic and cruise missile force consists of over 10 systems with ranges between 300 to 11,200 kilometers.⁵⁰ Additionally, the ballistic missile capability of China is evolving with systems that can engage adversary surface ships up to 1,000 nautical miles from the PRC coast.⁵¹ As a critical piece of an "array of overlapping, multilayered offensive [capability] extending from China's coast into the western

⁴⁹ Reuben F. Johnson, "China's J-20 makes maiden flight," *Jane's Defence Weekly*, January 11, 2011, under Asia Pacific, http://search.janes.com/Search/documentView.do?docId=/content1/janesdata/mags/jdw/history/jdw2011/jdw45050htm@current&pageSelected=allJanes&keyword=China's J-20 makes maiden flight&backPath=http://search.janes.com/Search&Prod_Name=JDW& (accessed January 20, 2011).

⁵⁰ *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 60.

⁵¹ *Ibid.*, 30.

Pacific,” China’s conventional ballistic and cruise missile force is a major anti-access concern.⁵²

China’s ballistic missile forces are undergoing “mechanization” and “informationization” as an integral part of China’s overall military modernization. China possesses between 1,050 to 1,150 short-range ballistic missiles providing a formidable threat to any adversary operating within 600 kilometers of China’s coast.⁵³ Areas such as Taiwan and the Senkaku Islands fall into this extremely well armed threat band. The medium-range ballistic missile (MRBM) threat includes the CSS-5 MRBM and the DF-21D “carrier killer” anti-ship ballistic missile (ASBM). Again from the Proceedings article, “On the Verge of a Game-Changer,” the authors highlight that the “mere perception that China might have an [ASBM] capability could be a game-changer, with profound consequences for deterrence, military operations, and the balance of power in the Western Pacific.”⁵⁴

The capability to develop and field an ASBM such as the DF-21D is an eye-opening example of the effort to ‘informationize’ China’s military forces. The DF-21D is an ASBM designed to receive “mid-course ballistic correction to update the target’s location, and then guide a Maneuvering Reentry Vehicle (MaRV) to the target.”⁵⁵ To accomplish a successful ASBM intercept would require the development and synchronization of satellite reconnaissance, over-the-horizon radars, un-manned aerial

⁵² *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China*, 29.

⁵³ *Ibid.*, 32.

⁵⁴ Andrew S. Erickson and David D. Yang, “On the Verge of a Game-Changer,” *United States Naval Institute, Proceedings* 135, no. 5 (May 2009): 26.

⁵⁵ *The People’s Liberation Army Navy, A Modern Navy with Chinese Characteristics*, 26.

vehicles (UAV), relay satellites, a C4ISR fusion center to merge all the ocean surveillance data, and finally the missile system itself.⁵⁶ Although the ability to field this capability is potentially a decade away, Admiral Robert F. Willard, Commander United States Pacific Command (USPACOM), recently stated in Japan's "Asahi Shimbun" newspaper that he believed the DF-21D had achieved "initial operational capability [IOC]."⁵⁷ The development of an ASBM capable of targeting a U.S. aircraft carrier at sea would present the U.S. Navy with a capability not previously faced and subject U.S. and allied navies to much greater risk if operating against Chinese forces armed with this capability.

China's ballistic missile inventory is a critical component to China's anti-access strategy. As depicted in Figure 3 (p. 46) the integrated capabilities of the PLA(N), PLAAF, and Second Artillery Corps, China's anti-access capabilities pose a credible and formidable threat to U.S. forces and forces in the region. China's military modernization and "informationization" efforts have created a problem that warrants a deterrent concept designed to counter these capabilities.

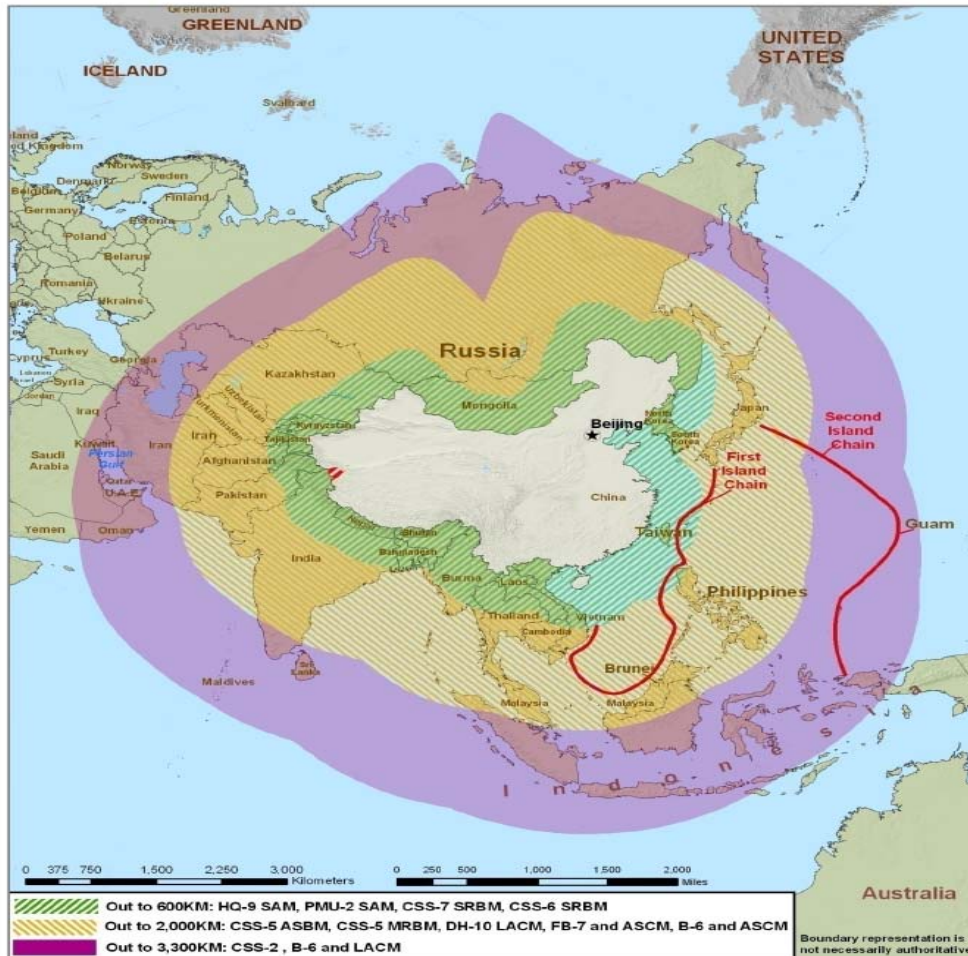
China's growth in anti-access capabilities is occurring under a period of change in China itself. In the aftermath of U.S. involvement in Operation Desert Storm and in witnessing other conflicts in which Western militaries dominated weaker and less capable enemy forces focused on quantity versus quality, Chinese military leadership and

⁵⁶ *The People's Liberation Army Navy, A Modern Navy with Chinese Characteristic*, 26.

⁵⁷ Associated Press, "China Closer to Deploying an Anti-Carrier Missile," *Fox News*, December 28, 2010, under "World," <http://www.foxnews.com/world/2010/12/28/china-moving-deploying-anti-carrier-missile> (accessed January 6, 2011).

strategists with the backing of the Chinese Communist Party leadership, executed what is commonly referred to as a “revolution in military affairs with Chinese characteristics.”⁵⁸

Figure 3: Conventional Anti-Access Capabilities



Source: U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China* (Washington, DC: Government Printing Office, 2010), 32.

⁵⁸ Bill Gates and Lonnie Henley, *China and the Revolution in Military Affairs*, Monograph (Carlisle, PA: Strategic Studies Institute, U.S. Army War College, May 20, 1994), 29.

The economic growth of China and its growing position in global affairs, led to the realization that China could no longer remain internally focused and organized to fight a continental land-battle in the former Soviet Union style. China's proximity to some of the major global shipping lanes and flashpoints such as Taiwan, the Senkaku Islands, and Spratly Islands test two of China's major strategic priorities; sovereignty and economic growth. These priorities led to a shift in military strategy from one of purely defense to one of "active defense" incorporating elements of offensive and defensive operations to secure China's vital national interests. To modernize its military, the PLA underwent first a "mechanization" of its forces by leveraging nearly two decades of double-digit budget increases to recapitalize, reorganize, and implement sweeping changes in its training and education programs to introduce joint concepts and practices, such as training and education, to enhance the military's ability to implement efficiently its military strategy of "active defense." Globalization and the growth of China's interests outside its regional sphere of influence introduced 'informationization' to its 'mechanization' efforts. Leveraging information systems and technologies, China is enhancing its modernization efforts by expanding its military capacity to include satellite constellations and anti-satellite (ASAT) systems, over-the-horizon cueing systems, complex C4ISR (command, control, communications, computers, intelligence, surveillance, and reconnaissance), and the cyberspace domain to harness these capabilities and further enhance its anti-access capabilities and posture itself to expand its power-projection capabilities well into the 21st century.

For two decades China has deliberately invested in capabilities that have successfully closed the gap between the U.S. and allied militaries and itself in the

Northeast Asia. This gap continues to be challenged as China produces increasingly more sophisticated weapons and technologies while adapting its military doctrine, organizations and training to emphasize the necessity of joint combined arms that are necessary against a stronger opponent. Although maintaining the strength advantage, it is likely that the U.S. will continue to see this gap narrow, especially in light of the global financial crisis and the impact of U.S. defense spending cuts in the aftermath of the conflicts in Iraq and Afghanistan. A deterrence concept centered on Air-Sea Battle could enable U.S. military and Japanese self-defense forces the ability to respond to aggressive Chinese actions that threaten the defense of Japan or U.S. security interests in Northeast Asia. This response should secure regional access allowing the flow of U.S. forces from the United States and other areas of the globe into Northeast Asia.

CHAPTER 3

AIR-SEA BATTLE: BRIDGING THE ‘MYOPIA’ GAP

*The United States remains the only nation able to project and sustain large-scale military operations over extended distances. We maintain superior capabilities to deter and defeat adaptive enemies and to ensure the credibility of security partnerships that are fundamental to regional and global security.*¹

Strategic Imperative: Regional Access, Regional Security

On December 15, 2010, General Norton Schwartz, the United States Air Force Chief of Staff, delivered a speech to the National Defense University, Washington D.C. In his speech, General Schwartz highlighted key elements of the strategic environment, domestic constraints, national interests, instruments of U.S. military and allied power, and connects these elements with the introduction of the “Air-Sea Battle Initiating Concept.”² He stated that “achieving enduring stability...will continue to be a daunting challenge, because the world remains a very unpredictable place, influenced by multiple actors with overlapping interests.”³ Challenging the U.S. and allied military capabilities in the next decade is the expansion of anti-access and area denial technologies and capabilities. General Schwartz states, “anti-access capabilities, especially when coupled with strategies that exploit them, can present a real challenge not only to U.S. and allied regional influence, but also to the interlinked system that is the basis of peaceful global trade, communication, and transportation.”⁴ The threat facing the U.S., its allies and partner nations are those that threatens access to the global commons, the domains of air,

¹ *National Security Strategy*, 17-18.

² Schwartz, 4.

³ Ibid, 1.

⁴ Ibid, 2.

sea, space and cyberspace. The state or non-state actors who threaten access to these domains seek to gain global, regional, or individual advantages in order to exploit them in a manner destabilizing to regional security. As seen in Chapter Two, China is one such actor that used the first decade of the 21st century to advance its modernization and anti-access capabilities. The access to the major trade routes in Northeast Asia coupled with numerous flashpoints in the region is an area of U.S. national interest. General Schwartz proposes the major challenge facing the United States regarding anti-access and area-denial capabilities:

Our challenge is, within fiscal constraints, to address the ability of potential adversaries to oppose our expeditionary power projection capabilities-in particular, in the vicinity of key trade routes, consistent with basing strategies, and around lines of communications, which are critical not only for our commercial interests and the global economy as a whole, but also to our ability to respond to a crisis anywhere around the world...[it is] about full-spectrum access and freedom of action to enable our Nation's collective, multi-dimensional ability to pursue and promote our vital national interests around the world.⁵

The Air-Sea Battle concept is being coordinated at the highest levels of the armed services. Much like AirLand Battle was developed under the mentorship of senior U.S. Army general officers; Air-Sea Battle is a multi-service project under the tutelage of not only the Air Force Chief of Staff, but also the Chief of Naval Operations, and the Commandant of the Marine Corps.⁶ This level of attention by the service chiefs highlights the importance of this effort in response to a growing concern to the nation.

As discussed in Chapter Two, the growing capacity for China's anti-access capabilities is a threat that America must focus on as it rebalances its strategic priorities. In the 2010 Quadrennial Defense Review Report (QDR), one of the key statements

⁵ Schwartz, 3.

⁶ Ibid, 4.

regarding future warfighting capacity was that “prudence demands that the Department prepare for possible future adversaries likely to possess and employ some degree of anti-access capability—the ability to blunt or deny U.S. power projection—across all domains.”⁷ It goes on to state that “future adversaries will likely possess sophisticated capabilities designed to contest or deny command of the air, sea, space, and cyberspace domains.” From the discussion on China’s growing military capabilities in the previous chapter, it is clear that China is squarely in this realm of “future adversaries.”

Two key elements stand out from the U.S. policy and strategy objectives as they relate to China growing military capacity in anti-access capabilities; regional access and regional stability. Regional access is a strategic imperative for the United States due to the economic interests and interconnectivity the U.S. shares between China, Japan, South Korea and many other nations within the Asia-Pacific region. Additionally, the sea lanes of Northeast Asia are a natural resource lifeline for Japan and South Korea as they receive much of the 15 million barrels/day of oil that flows through the Straits of Malacca from the Middle East.⁸ China’s lack of transparency surrounding its military modernization and growth of anti-access capabilities, including a robust ballistic and cruise missile capability and development of a blue water navy, could significantly impact the flow of goods and resources to key U.S. allies in the region upsetting the regional balance and threatening the overall global economic well-being. Within this context, the U.S. is caught in a “Catch-22” situation, where U.S. strategy treats China

⁷ 2010 QDR, 9.

⁸ United States Joint Forces Command, *The Joint Operating Environment (JOE)* (Suffolk, VA: February 18, 2010), 28. See chart.

neither as a partner nor as an adversary.⁹ Instead, the U.S. looks to ensure regional stability by engaging China in areas of mutual interest, such as economic initiatives and humanitarian assistance, while hedging against China's increasing military capabilities. This hedge includes maintaining a strong forward military presence in the region and strengthening key U.S. alliances and partnerships.¹⁰ The strategic requirements for maintaining regional access and ensuring regional stability while hedging against a rising China give credibility to an Air-Sea Battle concept development as part of a deterrent strategy for Northeast Asia.

Operational Deterrent to China's Anti-Access Capabilities Growth

As outlined in Chapter One, the U.S. Navy and Air Force have slowly reduced the barriers to interoperability beginning in earnest after Operation Desert Storm in 1991. The concept for a modern Air-Sea Battle has its origins just a little over a year later when Commander James Stavridis published "A New Air Sea Battle Concept: Integrated Strike Forces." In his paper, Commander Stavridis calls for the need for "new way to think about organizing, training, deploying, and employing integrated air and sea power."¹¹ His concept centers around an "immediately deployable, highly capable, and fully integrated force—an Integrated Strike Force [ISF]" comprised of the U.S. Navy's Carrier Battle Group, the U.S. Air Force's Composite Wing, and the U.S. Marine Corps

⁹ Patrick M. Cronin, ed., *Global Strategic Assessment 2009: America's Security Role in a Changing World* (Washington, DC: National Defense University Press, 2009), 261.

¹⁰ Ibid.

¹¹ Commander James Stavridis, *A New Air Sea Battle Concept: Integrated Strike Forces* (Washington, DC: May 1992), 3. James G. Stavridis is now a four-star Admiral and currently serves as Commander, U.S. European Command (USEUCOM) and NATO's Supreme Allied Commander Europe (SACEUR).

Amphibious Readiness Group with embarked Marine Expeditionary Unit.¹² Through the “five keys to war: Training, Deployment, Scouting, Targeting, and Striking,” the object of the ISF concept was to rapidly field U.S. combat forces into a region in an attempt to stop a crisis before it grows.¹³

The need for integrated training ensured command relationships, operational plans and tactical level tasks were jointly developed and routinely exercised. Understanding that projecting forces forward is primarily the responsibility of the services, his concept for deployment hinged on planning, system compatibility (such as fuel, ammunition, and C2 architecture), prepositioning equipment in potential areas of crisis, availability of overseas bases, and the positioning of assets in the crisis arena. Success in the deployment phase of Stavridis’ concept is when forces are “positioned to: (1) maintain a secure defensive posture against all possible threats; (2) permit effective combat operations against all possible threats; (3) are able to train, rehearse, and practice operations as required from the selected location; (4) are in a politically acceptable posture from the perspective of the host government; and (5) have adequate and secure communications with other U.S. and allied forces in the region, including competent logistic support.”¹⁴ With the training and deployment actions taken care of, the scouting, targeting and strike portions of his concept could begin. The key to scouting is the prioritization of all air, sea, and space-based Intelligence, Surveillance, and Reconnaissance (ISR) assets and the reporting and analysis of this information to ensure

¹² Stavridis, 3.

¹³ Ibid, 8.

¹⁴ Ibid, 14.

relevant, actionable intelligence is gained for the commanders to plan strikes with.¹⁵ Additionally, scouting relies on the collection, analysis and dissemination of accurate, relevant intelligence for commanders to act on.¹⁶ Targeting is executed through two prioritization processes. The first is the Target Alert Plan (TAP). The TAP is a readiness prioritization concept allows the commander to place different forces on various stages of readiness based on the developing crisis.¹⁷ The second prioritization process is the Target Priority List (TPL) which is a top-down look at the priority targets within a given crisis. These two processes represent the “centralized control” tenet of airpower, which leads to “decentralized execution,” or Stavridis’ concept of “Strike.”¹⁸ The “Strike” concept is simply the synchronization of air and sea power against those targets identified in the TPL to achieve the mission.¹⁹

Commander Stavridis outlined the first practical concept for air-sea integration under the newly developed joint construct. His keen insight to emerging crisis areas and encapsulation of the requirement for U.S. forces to have access to critical regions and capabilities that enable operational and tactical success serves as the baseline for any Air-Sea Battle concept currently proposed. In providing the baseline argument for Air-Sea Battle, Commander Stavridis provided a thoughtful dialogue necessary to ensure military operators and tacticians, especially those in the air and maritime services, continued to advance the requirement of service integration and interoperability. His 1994 insight to

¹⁵ Stavridis, 14-18.

¹⁶ Ibid, 16.

¹⁷ Ibid, 19-21.

¹⁸ Ibid, 21-22.

¹⁹ Ibid, 22-26.

the emerging anti-access environment and the impact of fiscal limitations on U.S. force development and sustainment foreshadowed the strategic environment shaping Northeast Asia today. Today's Air-Sea Battle concept is shaping to be much more than a simple integration of Air Force and Navy strike assets. U.S. strike assets will continue to be a critical capability that the U.S. should continue to develop and shape to ensure the ability to counter anti-access capabilities designed to delay, disrupt, or deny U.S. freedom of action.

Countering China's growing ability to effect regional security and stability is the premise for introducing a deterrent capability into Northeast Asia with Air-Sea Battle doctrine as the foundation. Maintaining regional access in Northeast Asia against a growing Chinese anti-access capability is the baseline for the development of an updated Air-Sea Battle concept.

The Chinese People's Liberation Army's (PLA) ongoing efforts to field robust anti-access/area-denial (A2/AD) capabilities are threatening to make US power projection increasingly risky and, in some cases and contexts, prohibitively costly. If this occurs, the United States will find itself effectively locked out of a region that has been declared a vital security interest by every administration in the last sixty years...Consequently; the United States confronts a strategic choice: either accept this ongoing negative shift in the military balance, or explore options for offsetting it.²⁰

The adoption of an Air-Sea Battle concept into joint and service doctrine should focus initially on providing two benefits to U.S. forces. The first benefit is that of advocating unity of effort regarding weapons development, procurement and fielding of systems to counter anti-access capabilities. The second benefit is to codify a doctrine of deterrence within the U.S. military that enables U.S. and allied forces to limit the influence of anti-access capabilities growth on regional access and regional security

²⁰ Jan Van Tol et al., ix.

issues. As stated in the revised final coordination draft of Joint Publication 3.0, “deterrence prevents adversary action through presentation of a credible threat of counteraction...deterrence stems from the belief of a potential aggressor that a credible threat of retaliation exists, the contemplated action cannot succeed, or the cost outweigh any possible gains.”²¹

The U.S. Air Force and Navy are postured to provide the most flexible deterrence options when placed in the context of China’s growing anti-access capabilities and the Northeast Asian operating environment. China’s anti-access threat is not only prevalent in the conventional domains of air and sea, but also is growing more complex and challenging in the domains of space and cyberspace. U.S. joint and coalition operations are reliant on the latter domains with command and control, ballistic missile warning, global positioning systems, ISR, and information based logistics tracking being just a few of the nation’s warfighting mechanisms that rely on sustained access to space and cyberspace assets and networks. Today’s Air-Sea Battle concept is more complex than that of Commander Stravidis’ 1994 air-sea strike concept because of the growth in space and cyberspace integration and the threat that China presents to U.S. military forces as its military modernization continues. As such, any Air-Sea Battle concept proposed for the 21st century needs to emphasize the complexities that successful access denial to space and cyberspace would impose on friendly forces should they be confronted by a threat whose capabilities in the realm of space and cyberspace challenge U.S. or coalition space and information dominance capabilities.

²¹ U.S. Department of Defense, *Joint Pub 3-0: Joint Operations*, draft (U.S. Joints Chief of Staff, October 7, 2010), V-13, V-14.

On May 18, 2010 the Center for Strategic and Budgetary Assessments (CSBA) published an extensive work entitled, “AirSea Battle: A Point-of-Departure Operational Concept.” In “AirSea Battle”, the authors address the Western Pacific area of operations and the threat that China poses on U.S. access to that region. In their report, the authors of “AirSea Battle” state that “the overall Chinese strategy appears designed to inflict substantial losses on US forces in a very short period of time, thereby lengthening US operational timelines and highlighting the United States’ inability to defend its allies.”²² The Air-Sea Battle operational concept envisioned in the CSBA report to counter Chinese anti-access capabilities is described as having two-stages which could be equated to the “seize the initiative” and “dominate” phases of a joint operation.²³ According to the CSBA concept, the “seize the initiative” stage comprises four lines of operations: (1) withstanding the initial attack and limiting damage to US and allied forces and bases; (2) executing a blinding campaign against PLA battle networks; (3) executing a suppression campaign against PLA long-range ISR and strike systems; (4) seizing and sustaining the initiative in the air, sea, space and cyber domains.²⁴ Once the initiative is gained, the CSBA operational concept moves towards a “dominate” phase which includes those actions that may be required to “resolve a prolonged conventional conflict on favorable terms,” including: (1) executing a protracted campaign that includes sustaining and exploiting the initiative in various domains; (2) conducting “distant blockade” operations;

²² Jan Van Tol et al., xii.

²³ *Joint Pub 3-0*, V-43.

²⁴ Jan Van Tol et al., xiii.

(3) sustaining operational logistics; and (4) ramping up industrial production (especially precision-guided munitions).²⁵

In “AirSea Battle,” vestiges of Commander Stravidis’ air-sea strike concept are seen within the CSBA report along with the expanded requirements to engage anti-access capabilities in the space and cyberspace domains. The literature regarding anti-access capabilities and strategies is limited and primarily the focus of think-tank reports and studies, student research, and commentary. In reviewing anti-access documents for the purpose of this research, the reviewed sources point towards four critical components to enhance the U.S. military’s capacity to succeed against China’s anti-access capabilities. In Northeast Asia these components are: (1) U.S. forces must be able to maintain and defend forward bases and possess the ability to deploy forces rapidly into theater to enhance theater access; (2) U.S. forces should be able to conduct persistent long-range strike against Chinese anti-access capacity; (3) U.S. forces must ensure integrated command and control of joint and combined theater operations; and (4) U.S. forces must gain and maintain dominance in the domains of space and cyberspace.

U.S. permanent bases in Northeast Asia are critical components to the nation’s ability to deter Chinese military aspirations and provide a measure of stability to the region by displaying U.S. resolve to our allies and partners in the region.²⁶ As seen in Figure 4 (p. 59), with the exception of the U.S. bases in Guam [as of 2007], the ability for Chinese anti-access capabilities to affect U.S. bases in the region is ever present.

²⁵ Jan Van Tol et al., xiii.

²⁶ Cronin, 264.

Figure 4: “The Dragon’s Lair” - Portions of the Western Pacific Most Vulnerable to Chinese Anti-Access Measures.



Source: Roger Cliff et al, *Entering the Dragon’s Lair: The Implications of Chinese Antiaccess Strategies and Their Implications for the United States* (Arlington, VA: RAND, 2007), 112.

However, as outlined in Chapter Two, the growth of China’s ballistic and cruise missile capabilities could place U.S. forces based in Guam in jeopardy. In 2001, a study by the Center of Strategic and Budgetary Assessments entitled “The Anti-Access Threat and Theater Air Bases,” listed six potential counters to potential threats to forward bases in an anti-access environment. Although specific to air bases, the counters could also apply to naval military and port facilities that also fall under the threat envelope. Those challenges include: base infrastructure, such as hardening of aircraft shelters, runways, port infrastructure, support facilities and storage areas; dispersal, via the use of multiple facilities throughout the area of operations; rapid suppression of anti-access threats, through the use of offensive kinetic and non-kinetic strike options; large, man-made, floating bases [sea-basing] to provide the capability to conduct operations when political

sensitivities or enemy activity prevents the use of forward bases or to complement existing forward infrastructure; active defenses, such as an integrated ballistic missile defense system; and basing outside the range of enemy threats, to include Guam, Hawaii, the U.S., other regional partners and carrier-based assets.²⁷

Due to the geographic separation between the U.S. mainland and China, global demand for U.S. naval presence, and limited long-range strike capability, U.S. forward basing is critical to deterring China's anti-access capabilities growth and contributes to the stability of Northeast Asia. Accordingly, one of the key assumptions in the 2009 U.S. Pacific Command (USPACOM) strategy states that "USPACOM will retain, or have available, at least the current level of force presence and posture."²⁸ Additionally, while introducing the Air-Sea Battle "initiating concept," Air Force Chief of Staff, General Norton A. Schwartz called on the services to "bolster the resilience of our forward bases and logistics through selective hardening, dispersal, warning, and active defenses."²⁹ As highlighted by the service chiefs from the U.S. Air Force and Navy, forward basing is a key component to success against anti-access threats. The 2010 Quadrennial Defense Review Report (QDR) states, "[The Department of Defense] will explore opportunities for a more forward-deployed presence that supports increased multilateral cooperation and maritime security and enhanced capabilities for assured access to the sea, air, space,

²⁷ U.S. Department of Defense, *Seabasing: Joint Integrating Concept*, version 1.0 (Washington, DC: August 1, 2005), 18; Christopher J. Bowie, *The Anti-Access Threat and Theater Air Bases* (Washington DC: Center for Strategic and Budgetary Assessments, 2002), 54-64.

²⁸ U.S. Pacific Command, *Strategy: Partnership, Readiness, Presence* (Camp H.M. Smith, HI: U.S. Pacific Command, April 2009), 6.

²⁹ Schwartz, 6.

and cyberspace.”³⁰ With appropriate force protection measures in place, forward basing enhances regional security and, if required, provides a forward-based capability to conduct counter anti-access operations including persistent long-range strike. It is likely that in the event of a conflict involving U.S. forces in Northeast Asia that “we will probably be required to fight the first few weeks of our next war from the decks of our aircraft carriers and from the concrete runways of our U.S. bomber bases.”³¹

The synergistic effect of integrated strike assets is superbly captured in RAND analyst Benjamin Lambeth’s observation:

The Air Force’s and Navy’s capabilities for air-delivered power projection are, and should be duly regarded as, complementary rather than competitive in the service of joint-force commanders, since land-based bombers and fighters and carrier-based fighters are not duplicative and redundant but rather offer overlapping and mutual reinforcing as well as unique capabilities for conducting joint warfare.³²

The U.S. fighter and bomber forces form the backbone of the kinetic strike capability of the U.S. military. Complimenting these platforms is a host of standoff weapons such as the Tomahawk cruise missile, Air Launched Cruise Missile (ALCM), Joint-Air-to-Surface Standoff Missiles (JASSM), and extended range variant of the JASSM, the JASSM-ER.³³ The U.S. military’s forward presence and kinetic strike capabilities are sustained and enhanced through robust and secure command and control, intelligence, and information networks.

³⁰ 2010 QDR, 66.

³¹ Lambeth, 29.

³² Ibid, x.

³³ U.S. Department of Defense, *Director, Operational Test and Evaluation, FY 2009 Annual Report* (Washington, DC: 2009), 183, 219.

The threat to U.S. space-based command and control, intelligence, surveillance, and reconnaissance (C2ISR) assets by China's anti-satellite (ASAT) capability and its capacity to conduct network attack, could lead the U.S. military to conduct operations to counter China's attempts to deny U.S. access to space and cyberspace. In order to ensure Air-Sea Battle unity of effort as the U.S. aims to retain or regain access to the air, sea, space, or cyberspace domains, a centralized command structure should be developed and maintained through a robust command and control (C2) network. U.S. forces rely on "resilient, reliable information and communications networks and assured access to cyberspace" to conduct the high-tempo operations of the 21st century.³⁴ The challenge for U.S. forces in developing Air-Sea Battle is to ensure the resiliency of U.S. space and cyberspace systems in the face of computer network attack, electronic attack, and ASAT operations.

As discussed in Chapter One, the interoperability of the U.S. Air Force and Navy in regards to executing joint air operations has increased significantly in the wake of the 1986 Goldwater-Nichols Act, Operation Desert Storm, and the years of successful joint air operations over Iraq, Kosovo, and Afghanistan. One of the key tenets of U.S. airpower is that of "centralized control, decentralized execution."³⁵ As demonstrated throughout over twenty years of combat operations, the Joint Task Force (JTF) construct with its warfighting component structure is a sound foundation to ensure unity of command within an Air-Sea Battle construct. Through the JTF structure, the Joint Force Commander (JFC) is "challenged to achieve and maintain operational coherence [unity of

³⁴ 2010 QDR, 37.

³⁵ U.S. Department of the Air Force, *Air Force Doctrine Document 2, Operations and Organization* (Washington, DC: Government Printing Office, April 3, 2007), 9-10.

effort].”³⁶ However, the primary C2 structures for air and maritime operations, the Air Force’s Air Operations Center (AOC) and the Navy’s Maritime Operations Center (MOC), without clearly defined roles and responsibilities for operating within the construct of Air-Sea Battle could lead to a breakdown in C2. CSBA’s “AirSea Battle” operational concept suggests that the U.S. Air Force and Navy “jointly assess whether and how AOCs and MOCs in the future could be integrated, in whole or in part, to support dual-Service and multi-Service operations.”³⁷ Effective Air-Sea Battle presence, protection, operations, and command and control will rely on continuous access to space based C2ISR and secure cyber-networks.

In “AirSea Battle” the study points out that China’s capability to deny the use of space and cyberspace based assets are growing in capacity. The study states that “the PLA is demonstrating growing ability to jam or damage on-orbit assets, especially in LEO [low-earth orbit].”³⁸ Additionally, the study references a growth in cyber warfare capability including the establishment of cyber warfare units, incorporating offensive cyber warfare into its exercises, and making cyber warfare a top funding priority.³⁹ Protection of U.S. space and cyberspace assets and securing access to those domains needs to be a top priority for Air-Sea Battle concept developers. The knowledge that attacks on U.S. and coalition space and cyberspace systems may have limited or no

³⁶ *Joint Publication 3-0*, I-12.

³⁷ Jan Van Tol et al., 88.

³⁸ *Ibid.*, 27.

³⁹ *Ibid.*

impact on the conduct of operations, may dissuade an adversary from “striking” U.S. systems, thereby increasing the deterrent effect of an Air-Sea Battle concept.⁴⁰

An Air-Sea Battle concept for the 21st century will be a complex undertaking by the U.S. Air Force and Navy to ensure ends, ways, and means to organize, train, and equip U.S. forces in order to deter a formidable Chinese anti-access threat and if required defeat those capabilities that threaten the U.S. presence and interests. Countering the anti-access threat in Northeast Asia is a strategic imperative for the U.S. military. Air-Sea Battle represents a concept rapidly adapting from an “initiating” concept to an “operational” concept by which the services can address the anti-access problem-set. Through doctrine development and force development, Air-Sea Battle could better represent an emerging “deterrence” concept in order to reduce the risk of regional stability and security, particularly in an era where U.S. forces are engaged in a priority theater, challenged by emerging situations, and fiscally constrained. As a deterrence concept, Air-Sea Battle should seek to reduce strategic risk in Northeast Asia through the development of the doctrine, organization, training, material, leadership and education, personnel, and facilities (DOTMLPF) which enable U.S. freedom of action in an anti-access environment and facilitates the rapid transition of U.S. forces and capabilities from one region to Northeast Asia.

In addition to the internal evolution that Air-Sea Battle may have on U.S. joint warfare, the impact on key strategic alliances will also be felt. The CSBA study postulates that “there are encouraging signs the Department of Defense intends to place serious emphasis and persistent focus on developing the AirSea Battle concept as a signal

⁴⁰ Jan Van Tol et al., 87.

of US commitment to security in the Western Pacific and to reassure regional partners in the near-term.”⁴¹ The U.S.-Japan alliance is the cornerstone of U.S. engagement in the Western Pacific and the defense of Japan is a strategic and operational imperative that cannot be ignored.⁴² The expeditionary capabilities of the U.S. military are reliant not only on the capabilities of its service components, but also on our allies and partners in security. Just as NATO proved to be a critical partnership against the threat of the Soviet Union and was a true partner in AirLand Battle, so will the United States’ close collaboration and integration with alliance partners in Air-Sea Battle. General Schwartz calls on the U.S. military to “look for opportunities to collaborate with allies and partners on applicable elements, to ensure integrated and effective coalition force operations wherever we are called-upon to act.”⁴³ The next chapter outlines the impact of China’s military modernization on Japan’s security interests and addresses Air-Sea Battle as a deterrent concept in the context of the U.S.-Japan alliance.

⁴¹ Jan Van Tol et al., xv.

⁴² Ibid, 30.

⁴³ Schwartz, 5.

CHAPTER 4

U.S.-JAPAN ALLIANCE: CORNERSTONE TO AIR-SEA BATTLES’ SUCCESS IN NORTHEAST ASIA

*The U.S.-Japan Alliance remains indispensable not only to the defense of Japan, but also to the peace, security, and prosperity of the Asia-Pacific region.*¹

U.S.-Japan Alliance Changes: Japan takes a Stronger Role

The authors of “AirSea Battle: A Point-of-Departure Operational Concept,” make a key assumption that Japan will be an active U.S. ally in Air-Sea Battle.²

Japan’s strategic location and long-standing alliance with the United States would pose a formidable problem for China not only in a cross-Taiwan scenario, but in any scenario where access to the maritime commons is threatened by Chinese actions or in the case of China attempting to resolve a territorial dispute with Japan via force.³

For over fifty years, the United States and Japan have been inextricably linked. Over this time period, the U.S.-Japan alliance has grown immeasurably. The U.S.-Japan security partnership formally began on January 19, 1960 with the signing of the “Treaty of Mutual Cooperation and Security between Japan and the United States of America.”⁴ In this treaty, the U.S. and Japan recognizes that an “armed attack against either Party in the territories under the administration of Japan would be dangerous to its own peace and

¹ *Joint Statement of the U.S.-Japan Security Consultative Committee*, (New York: U.S. Department of State, May 28, 2010), <http://www.state.gov/r/pa/prs/ps/2010/05/142318.htm> (accessed January 5, 2011). The U.S.-Japan Security Consultative Committee, also known as the “2+2” is comprised of the U.S. Secretary of State and Secretary of Defense and the Japanese Minister for Foreign Affairs and Minister of Defense.

² Jan Van Tol et al., 51.

³ Richard J. Samuels, *Securing Japan: Tokyo’s Grand Strategy and the Future of East Asia* (London: Cornell University Press, 2007), 169.

⁴ “Treaty of Mutual Cooperation and Security between Japan and the United States of America,” January, 19, 1960, *Embassy of the United States: Japan*, <http://tokyo.usembassy.gov/e/mdao/tmdao-security-treaty1960.html> (accessed January 5, 2011).

safety and declares that they would act to meet the common danger in accordance with its constitutional provisions and processes.”⁵ Second, the treaty states that “for the purpose of contributing to the security of Japan and the maintenance of international peace and security in the Far East, the United States of America is granted the use by its land, air, and naval forces of facilities and areas in Japan.”⁶ This treaty formed the basis of mutual security and forward presence of U.S. military forces in Japan.

In 1997, the Japan-U.S. Security Consultative Committee (also known as the “2+2”) conducted a review of the “Guidelines for the U.S.-Japan Defense Cooperation” originally signed in 1978. This defense review, conducted in the aftermath of the Cold War, placed the primary responsibility for the defense of Japan with the Japanese Self-Defense Force (JSDF) with U.S. forces reinforcing the JSDF as warranted.⁷ Upon arrival in theater, U.S. forces will conduct joint operation to counter air attacks against Japan, defend the waters surrounding Japan, protect the sea lines of communication (SLOC), counter invasion of Japan via air or sea, and respond to other threats such as special forces or ballistic missile attack. In order to support these efforts, the guidelines lay out the requirement to work towards bilateral defense planning and mutual cooperation planning, common standards for preparations for the defense of Japan, common procedures to ensure the smooth and effective execution of coordinated U.S.-Japan operations, including the importance of communication and electronics

⁵ “Treaty of Mutual Cooperation and Security Between Japan and the United States of America.”

⁶ Ibid.

⁷ *1997 U.S.-Japan Joint Statement.*

interoperability.⁸ In keeping with the 1960 Treaty of Mutual Cooperation, the U.S.-Japan “2+2” emphasized the facility support by Japan for U.S. forces and emphasized that the “U.S.-Japan alliance is indispensable for ensuring the security of Japan and continues to plan a key role in maintaining peace and stability in the Asia-Pacific region.”⁹

On February 19, 2005, the U.S.-Japan “2+2” met to discuss the changing security environment highlighting international terrorism, the proliferation of weapons of mass destruction, and the effect of global interdependence on national security.¹⁰ Regional areas of concern were the modernization of regional military capabilities and the “persistent challenges [that] continue to create unpredictability and uncertainty.”¹¹ In response to the changing security environment, the “2+2” laid out common regional strategic objectives for the U.S.-Japan alliance. The leading common regional objective was the “security of Japan and maintaining the capability to address contingencies affecting the U.S. and Japan.”¹² Among the other objectives, the U.S.-Japan “2+2” outlined its support for the peaceful reunification of Korea; the peaceful resolution of issues surrounding North Korea, including its nuclear programs and ballistic missile activities; the development of a cooperative relationship with China; the peaceful resolution of issues concerning the Taiwan Strait through dialogue; the encouragement

⁸ 1997 U.S.-Japan Joint Statement.

⁹ Ibid.

¹⁰ 2010 U.S. Japan Joint Statement.

¹¹ Ibid.

¹² Ibid.

for China to improve transparency of its military affairs; and maintaining the security of maritime traffic.¹³

On January 14, 2011, U.S. Secretary of Defense Robert Gates, during an official visit to Japan, highlighted the regional concerns over China's "opaque military modernization program" and the intentions of China's growing role in the region, when issues such as territorial disputes between China and Japan manifest themselves and cause concern for regional stability.¹⁴ Secretary Gates went on to state that the challenge to the U.S.-Japan alliance is maintaining its vitality and credibility through modernizing its force posture and other defense arrangements to "better reflect the threats and military requirements of this century."¹⁵ Additionally, he singled out the evolutionary nature of the U.S.-Japan alliance, called the forward presence of U.S. military forces in Japan a "critical component" to deal with the regional security challenges, and highlighted the importance for Japan to take on "greater regional and global leadership roles" as needed.¹⁶ Finally, Secretary Gates emphasized that as Japan increases its role as a regional leader, the U.S. would maintain its commitment to the alliance by maintaining the "military strength necessary to protect our [U.S.] interests, defend our [U.S.] allies, and deter potential adversaries from acts of aggression and intimidation."¹⁷

The U.S.-Japan alliance is the cornerstone to Northeast Asian regional stability. China's opaque military modernization including the growth of anti-access capabilities

¹³ 2010 U.S.-Japan Joint Statement.

¹⁴ Robert M. Gates, (speech presented at Keio University, Tokyo, Japan, January 14, 2011), <http://www.defense.gov/Speeches/Speech.aspx?SpeechID=1529> (accessed February 3, 2011).

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Ibid.

challenges the security of the region. In addition to the growth in Chinese anti-access capability, regional flashpoints such as Taiwan, North Korea, and the Senkaku Islands challenge the security of the region and impact the U.S.-Japan alliance. As a deterrent concept, Air-Sea Battle seeks to offer the necessary mechanism to facilitate deterrence and stability through the advancement of U.S. military and Japanese Defense Force integration and interoperability. Additionally, through active U.S.-Japan engagement in developing Air-Sea Battle as a deterrent concept, close alliance cooperation should lead to continued development of key capabilities and infrastructure in the region, thereby preserving access for U.S. forces and facilitating the seamless transition from a deterrent posture to high-end regional conflict in support of U.S.-Japan alliance objectives.

Facilitating Air-Sea Battle

Japan's capacity to facilitate Air-Sea Battle relies on the ability of the Japanese Self Defense Force (JSDF) to provide security for U.S. forward operating bases and possess capabilities within its defense forces that allows JSDF forces the ability to respond to a threat to Japan or its regional interests prior to U.S. forces being able to reinforce the region with sufficient force to seize the operational initiative from a belligerent China. As outlined in Chapter Two, China's anti-access capabilities extend beyond its ballistic missile capabilities. China military modernization under "mechanization" and "informationization" is providing a security challenge to the U.S.-Japan collective defense of the air, maritime, space, and cyberspace domains.

Threats to U.S. forward basing is of great concern to U.S. presence in the region.

The U.S. operates ten bases or ports on mainland Japan and U.S. facilities occupy over twenty percent of Okinawa.¹⁸ Four options for U.S. forward basing in Japan were presented in a recent study by the Center for a New American Security given the increase threat of China's medium range ballistic missile systems. These options include: (1) retain and harden existing facilities; (2) fortify Guam; (3) disperse; or (4) pullback to Hawaii.¹⁹ All of these options have merit; however, it is likely that the U.S. will elect to retain its forward presence in Japan, thereby warranting an inquiry of Japan's capability to defend these bases from ballistic missile attack.

Initiated in 2004, Japan's ballistic missile defense (BMD) system (based on U.S. BMD systems) is a key capability the JSDF fields in support of its national defense and the defense of U.S. bases in the region. Ironically, the impetus for Japan's own BMD capability came primarily as a result of North Korean missile launches and not China's modernization of its ballistic missile capabilities. In 1998, the North Korean government launched a Taepo Dong-1 missile over mainland Japan, leading the U.S. and Japan to begin discussions on joint research for theater missile defense.²⁰ Between 2006 and 2009, North Korea launched fourteen additional ballistic missiles and carried out an additional launch under the guise of a "satellite launch" towards the Pacific Ocean.²¹

¹⁸ Cronin, Kliman, and Denmark, 26.

¹⁹ Ibid, 17.

²⁰ Ted Osius, *The U.S.-Japan Security Alliance: Why it Matters and How to Strengthen It* (Westport, CT: Center for Strategic and International Studies, Praeger Publishers, 2002), 18. The Taepo Dong-1 missile is a Medium Range Ballistic Missile with an approximate range of 1,500 miles.

²¹ Ministry of Defense, *Defense of Japan 2010* (Japan Ministry of Defense, 2010), http://www.mod.go.jp/e/publ/w_paper/pdf/2010/27Part3_Chapter1_Sec2.pdf (accessed March 10, 2011), 205.

Japan's BMD capability is comprised of a two-tiered system with SM-3 "Interceptor" equipped Aegis destroyers providing the high-altitude intercept capability of incoming ballistic missiles and Patriot PAC-3 systems providing BMD intercept capability in the terminal phase of an incoming missiles flight.²² Supporting these missile systems are the FPS-3 and FPS-5 ground based air warning radar systems and the command, control, battle management and communication systems (C2BMC) architecture to effectively coordinate the detection and fire control systems of the Japan's BMD system.

Japan's relatively new BMD system is a critical component to Japan's self-defense and the protection of U.S. assets and interests. Developed and procured through the U.S. defense industry, the interoperability of the Japanese BMD system is inherent to its design. The partnership for continued U.S.-Japan BMD development is highlighted in two areas; the first being the joint venture in developing the Advanced Interceptor Missile and the support Japan has for the deployment of elements of the U.S. BMD system, including deployments of deployed mobile radar systems, Patriot PAC-3 systems to Okinawa, U.S. Aegis destroyers, and the basing of a U.S. Forward Based X-Band Transportable Radar System (AN/TPY-2) in northern Japan. The basing of the AN/TPY-2 is of note since it will provide ballistic missile search and track capability for both Japan's BMD systems as well as the U.S. global BMD architecture.²³

Japan's BMD system provides both a strong defensive layer against regional ballistic missile threats, but also provides for the possibility for improved access to

²² *Defense of Japan 2010*, pt. 3, chap. 1, sec. 2.

²³ *Ibid.*

forward bases in Japan in the event of a conflict where U.S. forces or their ability to project force is challenged. In addition to countering the ballistic missile threat, the JSDF capacity to gain air superiority over its territory and provide security to the maritime domain is another key deterrent capability that Japan will bring to an Air-Sea Battle concept.

In the event China threatens the Japanese mainland, one of the territorial claims of Japan, or the vital economic sea-lanes that bring over eighty percent of Japan's oil to the nation, the air and maritime domains will be the scene of initial conflict.²⁴ Additionally, any U.S. involvement either in the defense of Japan or its regional interests will involve basing access in Japan requiring the integrated defense of Japan's air and maritime self-defense components.

The Japanese Air Self-Defense Force (JASDF) and Maritime Self-Defense Force (MSDF) provide Japan the critical capabilities needed in the air and maritime domains for Japan's emerging defense force construct. The National Defense Program Guidelines published in December 2010, calls for building a "Dynamic Defense Force" that shows a "clear demonstration of national will and strong defense capabilities through such timely and tailored military operations [such] as regular intelligence, surveillance, and reconnaissance activities (ISR), [and] not just maintaining a certain level of defense force, is a critical element for ensuring credible deterrence and will contribute to the stability in the region surrounding Japan."²⁵ In order to achieve a credible deterrent effect, the Guidelines call for an enhanced defensive posture through the "strengthening

²⁴ Osius, 6.

²⁵ Ministry of Defense, *National Defense Program Guidelines for FY 2011 and Beyond* (Japan Ministry of Defense, December 17, 2010), http://www.mod.go.jp/e/d_act/d_policy/national.html (accessed March 10, 2011), 6-7.

of ISR, maritime patrol, air defense, response to ballistic missile attacks, transportation, and command communications, including the southwestern region.”²⁶ Already JASDF forces have replaced its aging F-4J squadrons on Okinawa with F-15J fighter aircraft, giving the JASDF a more capable weapons platform in the region as well as introducing greater mutual cooperation and interoperability between U.S. Air Force and JASDF F-15 squadrons now co-located on the island.²⁷

The growing number of incursions into Japan’s territorial waters and airspace along with adjacent airspace by foreign forces is calling for defense forces of Japan to provide continuous 24-hour surveillance through the use of its E-2C, E-767, P-3C patrol aircraft, surface and sub-surface ships, and coastal surveillance units.²⁸ Persistent ISR of Japan’s airspace, territorial waters, and maritime commons provides a critical operational requirement of indications and warning.

The JASDF is managing its the recapitalization and modernization of its own forces through programs such as the P-1 fixed wing patrol aircraft, SH-60K helicopter, F-15J and F-2 aircraft and weapons upgrades; improved early-warning radar for the E-767; new procurements in destroyers, submarines, and minesweeping platforms; and considering building a capacity to deploy Self Defense Forces into the Senkaku island regions southwest of mainland Japan.²⁹

²⁶ *National Defense Program Guidelines for FY 2011 and Beyond*, 13.

²⁷ Samuels, 168.

²⁸ *Defense of Japan 2010*, pt. 3, chap. 1, sec. 2.

²⁹ Ministry of Defense, *Defense Programs and Budget of Japan: Overview of FY2010 Budget Request* (Japan Ministry of Defense, January 2010), http://www.mod.go.jp/e/d_budget/pdf/220416.pdf (accessed January 5, 2011), 7, 9, 25; Ministry of Defense, *Defense Programs and Budget of Japan: Overview of FY2011 Budget Request* (Ministry of Defense, August 2010), http://www.mod.go.jp/e/d_budget/pdf/221020.pdf (accessed January 5, 2011), 2, 4, 6, 22.

Along with the modernization and force posturing changes to the JASDF and MSDF, key command and control initiatives have occurred to better integrate U.S. and Japanese forces to accompany the greater lead role Japan is taking in accordance with its National Defense Program Guidelines.³⁰ This initiative include the establishment of the bilateral and joint operations coordination center (BJOCC) at Yokota Air Base, relocation of the Air Defense Command of JASDF to Yokota Air Base, and the relocation of the Japanese GSDF Central Readiness Force headquarters to Camp Zama, home of the U.S. Army-Japan headquarters.

JSDF modernization, relocation, and command and control initiatives place its forces in a good position to provide a credible deterrence capability for the Japanese mainland, its regional interests, and U.S. forces reliant on forward bases in Japan for operations in response to U.S. national interests in Northeast Asia. Air-Sea Battle will rely on the seamless integration of U.S.-Japanese assets as well as the command and control elements for its forces. Japan is in the position to lead Air-Sea Battle efforts until such a time U.S. forces are able to integrate and if needed assume responsibility for operations in the defense of Japan or common national interests.

The commons of space and cyberspace are the final two areas of Japanese development and investment that the U.S.-Japan alliance can leverage to facilitate the success of Air-Sea Battle. China's demonstrated anti-satellite capability and ability to conduct offensive cyberspace operations threaten the security of the region and could lead to operational failure if China succeeds in denying access to either of those domains.

³⁰ *National Defense Program Guidelines for FY 2011 and Beyond*, 5.

Japan looks to increase its use of space to enhance its command, control, communications, computer, intelligence, surveillance and reconnaissance (C4ISR) capabilities.³¹ Japan's defense initiatives for space include a mix of research developments and the use of existing space platforms, including commercial imagery satellites, meteorological satellite data information, and the enhancement of X-band satellite communications functions, especially as they relate to Japan's BMD capability.³²

In the area of cyberspace, the Ministry of Defense efforts are in enhancing and strengthening the Cyber Defense System. The JSDF relies on communications networks to command and control its forces through the Defense Information Infrastructure (DII), the Central Command System (CCS) and JSDF component command and control systems.³³ Additional efforts include intrusion prevention systems and expanding the professional technical base for cyberspace issues.³⁴

Japan's space and cyberspace initiatives are areas in which the U.S. should strive to encourage cooperation. The collective ability for the United States and Japan to build systems that enhanced the redundancy and survivability of assets susceptible to attack through the domains of space and cyberspace is critical to enabling a strong deterrent capability. Overlapping, complimentary systems that leverage but do not necessarily rely on each other, could lead to a required redundant capability to preserve U.S. and Japanese freedom of action in the event China targets one or more critical systems in space or

³¹ *Defense Programs and Budget of Japan: Overview of FY2010 Budget Request*, 17.

³² *Defense Programs and Budget of Japan: Overview of FY2010*, 17; *Defense Programs and Budget of Japan: Overview of FY2011 Budget Request*, 11.

³³ *Defense of Japan 2010*. pt. 2, chap. 2, sec. 6.

³⁴ *Ibid.*

cyberspace. China's ability to target space and cyberspace through both kinetic and non-kinetic attack would undoubtedly disrupt Air-Sea Battle operations, particularly command and control, ISR, and precision targeting against threats to U.S.-Japanese interests.

Although Japan's forces are well suited to respond to regional contingencies that threaten the defense of Japan or its territorial interests, one major hurdle to any involvement of Japan in an Air-Sea "Battle" concept is defensive nature of Japan's self-defense force as highlighted in Article 9 of the Japanese Constitution:

- (1) Aspiring sincerely to an international peace based on justice and order, the Japanese people forever renounce war as a sovereign right of the nation and the threat or use of force as a means of settling international disputes.
- (2) In order to accomplish the aim of the preceding paragraph, land, sea, and air forces as well as other potential, will never be maintained. The right of belligerency of the state will not be recognized.³⁵

The history and analysis of Article 9 of the Japanese Constitution is beyond the scope of this paper. However, the involvement of Japanese defense forces in Air-Sea Battle would undoubtedly be those operations that were directly related to the defense of the Japanese people and territory (including U.S. bases).

As the United States' key ally in Northeast Asia, Japan is in a unique position to facilitate the U.S. efforts to develop an Air-Sea Battle concept. The capabilities that Japan has developed on its own and in concert with the U.S. compliment U.S. military capabilities in the region. The United States is committed to the defense of Japan. However, in light of the complex strategic environment, it is quite possible that U.S. forces could be limited should a regional contingency develop. The combined presence

³⁵ Kenneth L. Port, *Transcending Law: The Unintended Life of Article 9 of the Japanese Constitution* (Durham, NC: Carolina Academic Press, 2010), 16.

of U.S. and Japanese forces provide a critical deterrent to China's military modernization and anti-access capabilities. The U.S.-Japan alliance is critical to the success of Air-Sea Battle as a deterrent concept against anti-access expansion in Northeast Asia.

CONCLUSION

Air-Sea Battle is the cooperative response of the United States Air Force, Navy, and Marine Corps to rapidly introduce forces into a theater of operations against anti-access threats. The economic windfall of China and continued growth of its defense budget has allowed its forces to expand and modernize leveraging technological advances in space, cyberspace, ballistic and cruise missile development, fourth-generation fighter technologies, and advances in naval technology to develop a robust, interleaved anti-access capability that threatens the stability of Northeast Asia. The modernization of China's forces reduces the operational advantage held by U.S. forces against region threats which in turn impacts regional security.

The thesis of this paper aimed to present the argument that through the benefit of decades of alliance security and cooperation, the U.S. military and Japanese Self Defense Forces are in a mutual supportive position to deter the growing anti-access threat in Northeast Asia as a result of China's military modernization.

Adaptation of an Air-Sea Battle deterrence concept in Northeast Asia benefits from the confluence of four events; the growth of China's anti-access capabilities and opaque military modernization; the requirement to break the operational myopia that has impacted U.S. forces through nearly two decades of conflict in the Middle East; the impact of the global economy on current and future defense budgets requiring greater innovation, adaptation and interoperability; and the development of Japan's "Dynamic Defense Force" as Japan takes on a greater role in Northeast Asia.

As an “initiating concept,” Air-Sea Battle is at the beginning of what will surely be a series of iterative initiatives to enhance the operational capabilities of U.S. air and maritime forces. However, Air-Sea Battle must also look towards key U.S. allies and partners to facilitate the planning, organization, and training processes that will allow U.S. the flexibility and adaptability required by its military forces in today’s anti-access environments. Just as AirLand Battle enhanced the deterrent capability of the U.S.-NATO alliance during the Cold War; Air-Sea Battle facilitates a greater deterrent effect versus China’s military modernization and anti-access capabilities.

By providing a robust self-defense posture including the protection of U.S. facilities in Japan, Japan’s Self Defense Forces are postured to provide the initial defense capability required to protect access necessary to the domains of air, sea, space and cyberspace as U.S. forces augment and establish greater presence in the region as the situation dictates. It is a strategic and operational imperative that the U.S. engages Japan actively and openly on the development of an Air-Sea Battle “Deterrent Concept” in order to enhance Japan’s defense and the stability of Northeast Asia.

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